3

pectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions .....

ocus .....

pectr. Temp. ..... Dome Temp./Hum. .....

p. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
							DAVID DUNLAP OBSERVATORY				
							74" LOG BOOK				
							VOL 56				
							PLATE NOS. 46096 - 46957				
							AUG 1981 - JUL 1982				

5

Date . AUG. 15/16/81. Observers .... Ri.-Fd.....

Emulsion Batches:
IIaO-E 05031-06081 21 190
IIIaJ-eb 07119 -06081 79 3.f

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
46096	HD 137909	$15^h\ 23.^m7$	$+29^\circ\ 27'$	23:14	23:35	$5^h\ 29^m$	$+29^\circ\ 11'$	Fe/-	11-1	80/75
46097	HD 159561	17 30.3	$+12^\circ\ 38'$	23:42	00:18	$4^h\ 05^m$	$+17^\circ\ 33.4'$	Fe/-	18-1	40/300
46098T	optical plate A plates 46096				15 min @	150 volts	D4 3900 D3 4300 D2 4810			
46098	HD 171167	18 33.5	$+38^\circ\ 41'$	00:22	00:25	$3^h\ 10^m$	$38^\circ\ 46'$	Fe/-	18-1	20/100
46098F	focus test							Fe/-	15-18	
46098T	optical fn plates 4697+98			15 min @ D4	17.5U 3900	15U 4300	15U 4810			

Spectr. Temp. 70°F Dome Temp./Hum. 69°/97% Transparency Conditions POOR, HAZY 6
SCATTERED CLOUDS

Focus 496

Spectr. Temp. 70° Dome Temp./Hum. 65°/100%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
80/75		3.93	F0p	B.C.	1200/-.025	BS	IIaOE	A	Asm-Sp/KK	Exposure time limited by dome edge.	½ wash
40/300		2.2	A5III	B.C.	1200/-.025	BS	IIIaJeb	B	"		heavy fog
							IIaO-E				
20/100		0.04	A0V	"	"	BS	IIIa-Jeb	A	"		heavy fog
				"	"	"	IIaO-E	B			
							IIIaJeb			HUMIDITY 100% IN DOME. HAD TO CLOSE UP.	

7

Date SUN-MON. AUG. 16/17, 1981 Observers ..Fln.-Ri.....

Emulsion Batches:

8" 68° IIaO-E 05031-12081 20 196

5" 68° 098-02E 05031-13081 A2 212

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46099F	FOCUS TEST					00h 12m W	+29° 12'	Fe/–	15-15
46099	HD 186688 = 52 Cyg	19h 40m.8	+29° 01'	19:56	21:25	00h 54m E	+29° 13'	Fe/–	5-5-5
						① D4	② P3	③ D2	
46099T	SPOT CAL. FOR PLATES 46099-46105				15 MIN @ 15	VOLTS 3900	4300	480	
46100	HD 184927	19h 31m.6	+31° 04'	21:30	23:50	01h 40m W	+31° 14'	Fe/–	5-5-5
46101	HD 184927	19h 31m.6	+31° 04'	23:57	03:10	05h 02m W	+31° 14'	Fe/–	4-4-4
								Ne/–	8-8-8
46101T	SPOT CAL. FOR PLATE 46101			15 MIN @	① D3 15V 4810	② D1 7V Hd	③	D3 15V 3900	
46102	HD 21071	3h 18m.9	+48° 45'	03:22	03:58	1h 59 E	+49° 02'	Fe/–	5-5-5
46103	HD 20902 = α Per	03h 17m.2	+49° 30'	04:01	04:03	1h 52 E	+49° 46'	Fe/–	7-7
46104	HD 4142	00h 38m.9	+47° 19'	04:10	04:27	01h 11m W	+47° 45'	Fe/–	5-5-5
46105	HD 210839	22h 08m.1	+58° 55'	04:30	04:41	03h 58m W	+59° 20'	Fe/–	5-5-5

Spectr. Temp. 68°F ..... Dome Temp./Hum. 64°F / H=71% Transparency Conditions .. stell 9 8

Focus .. 497 .....

Spectr. Temp. 59 °F ..... Dome Temp./Hum. 52°F / H=87%

Exp mtr test: 28 counts in 1 min @ 40 gain.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.68	BS	IIaO-E	A		F=497, T=68°F	
400/360	4"-5"	6.87 -7.66	F0-G1	"	" / "	"	"	B	CEPH/EVANS		
							IIaO-E				
400/500	4"-5" end: 3"	B= 7.30	B2Vp	"	" / "	"	"	A	Bln-He*	F=498, T=66°F	
400/350	—	B= 7.30	B2Vp	BC	830/.9	GG13 150/.5	098-02E	B	Bln-He*	F=498, T=63°F	fine
							098-02E				
200/250	3-4	B=6.0	B6V	BC	830/.68	BS	IIaO-E	A	STD.VEL.-Bln.	F=500, T=60°F	sl strong
20/33	3-4	2.3	F5Ib	"	" / "	"	IIaO-E	B	STD VEL.-Bln		sl strong
200/175	3"-4"	B= 5.53	B5V	"	" / "	"	IIaO-E	A	RUNAWAY*		v sl str.
40/35	3"-4"	B= 5.29	O6f	"	" / "	"	IIaO-E	B	RUNAWAY*		fine

9

MON./TUES.

Date AUGUST 17/18, 1981 Observers G.S.-R.

Emulsion Batches: 8m 68 IIaO-E 05031-12081 20 191

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
46106F	FOCUS TEST					0h 07m W	+31° 21′	Fe/—	15-15	
46106	HD 186688 (SU Cyg)	19h 40m.8	+29° 01′	19:55	21:25	0h 49m E	+29° 13′	Fe/—	5-5-5	400/360
46106T ✓	SPOT CAL FOR PLATES 46106 – 46113				15 MIN @ 15 VOLTS	① D4 3900	② D3 4300	③ D2 4810		
46107	HD 187567	19 45.4	+7 39	21:32	22:09	0h 11m E	+7° 52′	Fe/—	5-5-5	200/175
46108	HD 191566	20 05.5	+35 11	22:14	00:06	1h 26m W	+35° 26′	Fe/—	5-5-5	400/350
46109	HD 214930	22 36.6	+23 19	00:09	01:09	0h 01m E	+23° 45′	Fe/—	5-5-5	400/350
46110	HD 219188	23 08.9	+4 27	01:12	01:59	0h 15m W	+4° 54′	Fe/—	5-5-5	400/350
46111	HD 220057	23 15.7	+60 37	02:04	02:42	0h 52m W	+61° 02′	Fe/—	5-5-5	400/350
46112	HD 16429	2 33.1	+60 51	02:51	04:41	0h 27m E	+61° 12′	Fe/—	5-5-5	400/350
46113	HD 12929	2 01.5	+22 59	04:46	04:48	0h 12m E	+23° 24′	Fe/—	7-7	20/35

Spectr. Tem
Focus ... 4
Spectr. Tem

Spectr. Temp. 67°F ..... Dome Temp./Hum. 62°F / 75% ..... Transparency Conditions . excellent .....

Focus ... 498 .....

Spectr. Temp. 60°F ..... Dome Temp./Hum. 55°F / 98% 40/28

Comparison Type/Filter	Comparison Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
						BC	830/.68	BS	IIaO-E	A		T=67°F F=498	
/-	15-15	400/360	3-4"	6.87-7.66	FO-G1	"	"	"	"	B	CEPH/EVANS		Fine
② P2 4910									"				
Fe/-	5-5-5	200/175		6.42	B2.5IIIe	BC	830/.68	BS	IIaO-E	A	Runaway *	T=66°F F=498	Fine
Fe/-	5-5-5	400/350	3-4	7.26	B0.5III	"	"	"	"	B	Runaway *	T=65½°F F=498	"
e/-	5-5-5	400/350	2-3	7.39	B2III	"	"	"	"	A	Runaway *	T=63°F F=499	"
Fe/-	5-5-5	400/350	2	7.01	B0.5III	"	"	"	"	B	Runaway *	T=63°F F=499	"
Fe/-	5-5-5	400/350	2	6.94	B2IV	"	"	"	"	A	Runaway *	T=61°F F=500	"
Fe/-	5-5-5	400/350	2	8.29	O9.5III	"	"	"	"	B	Runaway *		VS/wk
/-	7-7	20/35		2.2	K2IIIab	"	"	"	"	A	Std. Velocity		SX

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TUES./WED.

Date AUGUST 18/19, 1981 Observers ....Gis.-Ri.....

Emulsion Batches: IIaO-E ...05031-17081 19 190

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46114F	FOCUS TEST					0h07mW	0° 00'	Fe/—	15 15
46114	HD 167264	18h 09m.3	-20° 45'	19:52	20:16	0h25mE	-20° 44'	Fe/—	7-7
46115	HD172488	18 35.4	-8 49	20:20	21:53	0h46mW	-8° 44'	Fe/—	5-5-5
46115T ✓	SPOT CAL. FOR	PLATES	46114-24		15 MIN	@ 15 VOLTS	⊙ D4 3900	⊙ D3 9300	
46116	HD 186688 (SUGG)	19 40.8	+29 01	21:58	22:51	0h40mW	+29° 12'	Fe/—	5-5-5
46117	HD 192281	20 09.0	+39 58	22:54	23:45	1h06mW	+40° 12'	Fe/—	5-5-5
46118	HD189957	19 57.6	+41 43	23:49	00:56	2h28mW	+41° 56'	Fe/—	5-5-5
46119	HD191566	20 05.5	+35 11	00:59	02:16	3h41mW	+35° 26'	Fe/—	5-5-5
46120	HD 3950	0 37.0	+51 48	02:20	02:53	0h14mE	+52° 14'	Fe/—	5-5-5
46121	HD 4142	0 38.9	+47 19	02:56	03:04	0h05mE	+47° 44'	Fe/—	5-5-5
46122	HD 11606	1 48.8	+56 47	03:10	03:43	0h37mE	+59° 09'	Fe/—	5-5-5
46123	HD 14220	2 12.8	+52 07	03:47	04:22	0h21mE	+52° 28'	Fe/—	5-5-5
46124	HD 220057	23 15.7	+60 37	04:26	04:54	3h08mW	+61° 03'	Fe/—	5-5-5

Spectr. Temp. 71°F ..... Dome Temp./Hum. 68°F/70% Transparency Conditions . cloudy 12

Focus .... 497 .....

Spectr. Temp. . 64°F ..... Dome Temp./Hum. ... 60°F/89% 40/28

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.68	BS	IIaO-E	A		T=71°F F=497	
80/121	2"	5.45	09.7Iab	"	"	"	"	B	Std. - B/n		
800/700	2	8.16	B0.5V	"	"	"	"	A	Runaway *		
③ D2 4810							IIao-E				
400/360		6.87-7.66	FO-G1	BC	830/.68	BS	IaO-E	B	CEPH / EVANS		
400/350	1-2	7.93	O5f	"	"	"	"	A	Runaway *	T=70°F	
400/350		7.83	B0III	"	"	"	"	B	Runaway *	T=69°F	
400/350	2-3	7.26	B0.5IV	"	"	"	"	A	Runaway *	T=68°F	
400/350		7.05	B1III	"	"	"	"	B	Runaway *	T=67°F	
80/70	2	5.53	B5V	"	"	"	"	A	Runaway *	T=66°F F=498	
400/350		7.08	B2Ine	"	"	"	"	B	Runaway *		
400/350		7.01	B2II	"	"	"	"	A	Runaway *	T=65° BROKEN 2 PIECES	
400/300		6.94	B2III	"	"	"	"	B	Runaway *		

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Wed - Thurs

Date ... Aug. 19/20 ... 1951 Observers ... Rm - Th ...

Emulsion Batches: ... II-a-O.E. ... 05031 ... 18081 ...

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46125F	Focus Test					00 07W	00 00	Fe/—	15-15
46125	HD 180583 = HP 730	19h 12.0	+27° 45	19 : 47	20 12	01 26E	+37° 56.7	Fe/—	5-5-5
46126	HD 165719 = γ Oph	17h 47.3	-02° 07	20 : 16	22 32	02h 17W	-04° 05	Fe/—	5-5-5
46126T	Spot Calc for 46125-37			15m - 0 15V		D4 2900	V3 4200	D3 1500	
46127	HD 180628 = 5V Cyg	19h 10.8	+29° 01	22 : 36	00 : 04	01 58W	+29° 15	Fe/—	5-5-5
46128	HD 216 = 41 Cyg	20h 2.1	-30° 2'	00:07	00 15	01 24W	+30° 20	Fe/—	7-7
46129	HD 2713 = 22 Vul	26h 11.2	+23° 12	00 : 18	00 36	01 59W	+23° 30	Fe/—	7-7
46130	HD 193370 = 3 Cyg	20h 14.1	+39° 40	00 : 38	00 57	02 17W	+39 57	Fe/—	7-7
46131	HD 199093 = 6 Cyg	20h 18.6	+39° 56	01 : 00	01 02	02 18W	+40 16	Fe/—	7-7
46132	HD 199093 = 7 Cyg	20h 18.6	+39° 56	01 : 01	01 03	02 20W	+40 16	Fe/—	7-7
46133	HD 180583 = HP 730	19h 12.0	+27° 45	01 : 07	02 01	04 35W	+27° 58	Fe/—	7-7
46134	HD 203156 = HR 8175	21h 15.4	+37° 49	02 05	02 42	03 01W	+38° 12	Fe/—	7-7
46135	HD 214935	22h 36.6	+23° 19	03 16	04 21	03 11W	+23° 47	Fe/—	5-5-5
46136	HD 9172	00h 37.9	+47° 14	04 25	04 39	01 34W	+47° 43	Fe/—	7-7
46137	HD 12969	02h 01.5	+22° 57	04 43	04 43	00 16	+23° 29	Fe/—	7-7

Spectr. Temp. 71°F ..... Dome Temp./Hum. 66°F / 79% Transparency Conditions ..... Fine 14

Focus ..... 498 .....

Spectr. Temp. ..... Dome Temp./Hum. 57°F / 88% .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/68	BS	IIaOE	~~A~~			
200/ 180	1"	6.7	F8-T6	BC	830/68	BS	IIaOE	B	Cyg/Evans		Fine
400/ 1300	2"	7.0	F8T6	BC	"	"	"	A	Cyg/Evans		Fair
							"				
400/ 720	1"	6.9	F8	BC	"	"	"	B	Cyg/Evans	69°F	Str
40/ 90	1"	4.4	F5T	"	"	"	"	A	Cyg/Evans		Str
40/ 52	1"	5.2	G216	"	"	"	"	B	Cyg/Evans		Fine
40/ 52	1"	5.9	F556	"	"	"	"	A	Cyg/Evans	67°F Focus 498	Fine
40/ 45	1"	3	F856	"	"	"	"	B	Cyg/Evans		
40/ 30	1"	"	"	"	"	"	"	A	Cyg/Evans		Fine
200/ 180	2"	6.7	F6T6	"	"	"	"	B	Cyg/Evans		"
200/ 100	2"	5.1	F8	"	"	"	"	A	Cyg/Evans		"
400/ 360	[illegible]	7.3	[illegible]	"	"	"	"	B	Runaway*		Fair
100/ 35	3"	5.53	[illegible]	"	"	"	"	A	Runaway*		"
40/ 33		2.8	12[illegible]	"	"	"	"	B	std. vel.		"

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Thurs-Fri

Date . Aug. 20/21/81 Observers . K.K. - T.M. - F.D.

8m 68°
5m 68°

Emulsion Batches:
IIaD.E. 05021-2008/18177
IIa-aJ. 09061-2008/25297

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
46138	HD 137909	15h 23.7m	+29° 27′	19:52	19:56	2h 10mW	+29° 08′	Fe/-	11-11	40/61
46139	HD 159561	17h 30.3m	+12° 38′	20:02	20:08	0h 15mW	+12° 32′	"	18-18	40/20
46140	HD 161096	17h 38.5m	+4° 37′	20:14	20:18	0h 18mW	+4° 32′	"	11-11	40/15
46141	HD 8890A	1h 22.6m	+88° 46′	20:36	20:37	7h 55mE	+89° 10′	"	7-7	40/20
46142 ✓	HD 8890 B	"	"	20:41	23:59	4h 36mE	+89° 09′	"	5 5-5	80/20
46142T	Spot Calib	for 46138, 40-43, 45-50			15min @	15V D4 3900	D3 4300		D2 480	
46143	HD 201156 B	21h 02.7m	+33° 44′	00:08	01:54	2h 29mW	+34° 01′	Fe/-	5-5-5	40/20
46143T ✓	Spot Calib	for 46139, 44			15min @	17.5V D4 3900	15V D4 4300	15V D4 4800		
46144	HD 171167 Vega	18 33.5	+38 41	02:06	02:08	5h 14mW	+38° 46′	Fe/-	18-18	20/10
46145	HD 207782	22h 58.0m	+42° 13′	02:14	02:27	1h 07mW	+42° 38′	Fe/-	11-11	80/51
46146	HD 217675	22 57.3	+41 47	02:30	02:33	1h 13mW	+42° 12′	"	11-11	40/45
46147	HD 186688 SU Cyg	19h 40.8m	+29° 01′	02:40	03:32	5h 29mW	+29° 12′	"	5 5-5	40/50
46148	HD 191610 28 Cyg	20h 05.8m	+36° 33′	03:37	03:55	5h 27mW	+36 48	"	5-5-5	40/40
46149	HD 4142	00h 38.9m	+47° 19′	03:59	04:13	1 11 W	+47 42	"	7-7	40/35
46150	HD 14220	02h 12.8m	+52° 07′	04:16	04:52	0 13 W	+52 25	"	7 7	20/11

Spectr. Temp. 74° Dome Temp./Hum. 70F / 82% Transparency Conditions ... excellent to sl hazy 16

Focus 4.96

Spectr. Temp. 66 Dome Temp./Hum. 60F / 80%

Comparison Filter	Comparison Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
		40/61	1"	3.9	F0p	B.C.	1200/-.025	B.S.	IIaO-E	B	Asm-Spec	(Note- Focus Test 46138F done 6B at beginning of night) PHA?	v sl strong uneven
		40/86	"	2.2	A5II	"	"	B.S.	IIIa-J	A	"		Fe wk St+
		40/65	"	3.9	K2III	"	"	B.S	IIaO-E	B	St. Vel		Fine
		40/48	"	~2	F	"	830/.680	150/.3	IIaO-E	A	Asm-Sp.		St+
		200/290*	"	8.6	F	"	"	150/.5	IIaO-E	B	"	* Prob more comp to Exp ratio of 1.5 to 1	good exp sl uneven
									IIaO-E				
		400/169	1"	8.1	?	B.C	830/.680	150/.3	IIaO-E	A	Asm Sp.	T=69°, Set=498	S/St-
									IIIaJ-E				
		20/103	1"	0.0	A0V	"	1200/-.025	B.S.	IIIaJ-E	B	Asm Sp.	T: 68 Set 498	strong
		40/51	"	5.17	A2	"	"	"	IIaOE	A	"		Fine
		40/45	"	3.6	B6p	"	"	"	"	B	"		"
		400/152	2-5"	6.9-7.7	F0-G1	"	830/.680	"	IIaOE	A	Cepheid Binaries / Evans		V sl weak
		40/40	"	4.8	B3Ve	"	830/.680	"	"	B	Request Percy - Fd	Was photometric, active 5 days ago.	labeled 46!
		40/35	1-2"	5-5.3	B5V	"	"	"	"	A	Runaway		S/St-
		200/116	1"	7.01	B2V	"	"	"	"	B	"		F-

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5m 68°

Emulsion Batches: IIaO-E 05031 ~2008 19,200

Date Fri-Sat. Aug 21/22, 1981 Observers Fln-Tn

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46151F	Focus Test					00h 21m E	+4° 29'	Fe/-	17-17
46151	HD 161096	17h 38.5m	+04° 37'	19:43	19:46	00h 11m E	+4° 30'	Fe/-	7-7
46152 ✓	HD 167719 = V468 Cyg	20h 38.5m	+35° 06'	19:54	20 51 *	02 05 E	+35° 16'	Fe/-	55-5
46152T	Spot Calc.	Fo 46151-52			15min @ 15V	D4 3490	D3 4300	D5 4810	

Spectr. Temp. 75°F..... Dome Temp./Hum. 73°F / H=66% Transparency Conditions ..Some Strom/ more now 18

Focus ...496.....

Spectr. Temp. ..... Dome Temp./Hum. ...70°F / H=84% @ 23h20m

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	832/.68	BS	IIaO	A		F=496; T=75°F	
40/39	1'	B= 3.9	K2 III	"	"/"	"	IIaO-E	A	STD. VEL.		F-e
400/175	1"	B= 6.52	B2Ve	"	"/"	"	IIaO-E	B	RUNNAT *	Most counts in 1st half (by far)	v s' wk
							IIaO-E				
										WIPED OUT by CLOUD ~21h	

19

Mon-Tues

8m 68°

Emulsion Batches:
IIaE..05031..-21.081 20,203
.....
.....

Date .Aug. 29/25 1911 Observers .R.M.-T.H.....

P	Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp	Exp. Mtr.
4	46153	HD186688=SV Cyg	19h 40m	+29°01	21.02	22 25	00h 38 W	+29° 17	Fe/-	5-15	1/30
✓	46153T	Spot Calc	for 46153	-54		15min @ 5V	D4 3900	D3 4300	D2		
✓	46153F	Focus Test of Hollow Cathode					0	-17°	Wr 66 Fe/-	10-0	
4	46154	HD186688=SV Cyg	19h 40.8	+29°01	00:01	02 48	05 02 W	+29° 16	Fe/-	5-55	1/30

Spectr. Temp. 70°F ..... Dome Temp./Hum. 66°F / 94% Transparency Conditions ... Some Cloud ... 20.

Focus ... 1??F .....

Spectr. Temp. 6??F ..... Dome Temp./Hum. 58°F / 98% .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
??/132	4"	6.9-7.7	F0-G1	BC	830/.63	6S	IIaOE	B	Cepk/Evans	Solid cloud	s/wt
							"				
								B	Set 496 T = 68°F		still wk intervening
??/266	2-3"	7.4	G0	BC	830/.68	BS	IIaOE	B	Cepk/Evan	more cloud 67°F Focus 497	s/wk

21 Tues-Wed @ 8h 68° Emulsion Batches: IIa0-E 23951 - 21321 20, 192

Date Aug 25:26, 81 Observers Ase-Jn

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
46155F	Focus Test					0	0	Fe/-	15 s
46155	HD 161096	17 38.5	+4 37	19 36	19 39	0 03E	+4 36	"	7-7
46156	HD176155	18h 53.8	+17° 14'	19 45	20 12	0 45 E	+17 19.1	"	7-7
46157	HD 179315	19h 7.0	+4° 11'	20:15	22:47	1 36 W	+4 18.7	"	7-5
46157T	Spot Calib	for 46155-59			15 min @ 15V		D4 3900 D3 4300 D2 4810		
46158	HD 180582	19h 12.0	27°45	22:49	23:31	2:16 W	+27 54.6	Fe/-	5-5-1
46159	HD 203156	21h 15.4	+37° 49°	23:41	00:11	0:53 W	+38 09.6	"	5-5

Spectr. Temp. ...+71°F..... Dome Temp./Hum. +67°/87% Transparency Conditions ...hazy.....

Focus .....497.....

Spectr. Temp. ...68°F..... Dome Temp./Hum. +63°/100+

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/1.68	BS	IIaO	B			
40/36	1-3/4"	3.9	K2 III	BC	"	BS	IIaO-E	A	std vel		
200/182	1"	5.4	F5	B.C.	"	BS	"	B	Are proj		Fine
100/310	1"	7.69	K2	BC.	"	"	"	A	"		sl wk
							"				
200/160	1"	5.93	F6 III	BC	830/1.68	BS	"	B	"	T=69°F broken spcs	Fine
200/170	1"	5.75	F2	"	"	"	"	A	"	fog	Fine

23

Wed - Thurs

Date Aug. 26-27-81 Observers Ave. - Tu.

Emulsion Batches:
II a O-E 03051 - 21081 21 20

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46160F	Focus Test								
46160	HD 205778	21 39.7 18	+9 25	19h 36	19 47	3 52E	+9 46.2	T_o -	7-7
46161	HD 176 155	19 53.3	+17 14	19 56	20:19	0 08E	+17 20.5	T_o -	5-10
46161T	Spot Calib	for 46160 →			15 min @ 15V	D1 3900	D3 4300	D2 4100	
	Mon. Aug 31/81								
	Found valves on all six chambers closed! — Ri sent.								
46161T2	Spot Calib	15 m @ 7V	(1) D2 Hg	(2) D3 4150					
46161T3	Spot Calib	15" @ 15"	(2) D3 4100	(3) D1 3600			(Wr 18A)	14	5

Spectr. Ter
Focus ....
Spectr. Ter
Exp. Mtr

Spectr. Temp. 73°F Dome Temp./Hum. 69°F/70% Transparency Conditions Cloudy 24

Focus 4.97

Spectr. Temp. ____ Dome Temp./Hum. /

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.68	BS	IIaO	B?			sl. real
——	2.39	K2I6	1"	BC.	830/.680	BS	IIaO-E	A	Arc Prog	Exp Met. NOT WORKING	weak
09?/∞	54	75	1-2"	BC.	"	"	"	B	"	CLOUDS! 10:26	sl weak
							"				
							2415 baked 3h				
Welden		3600 A exp. sl str.			43,235		IIaO baked 1.3h			72° 100% RH	

25

Mt. Dunn

Date Sept. 7-8 1981 Observers Abe-Ri

8m 67° Emulsion Batches: T.O.-E. 05031-26081

5m 67° tel 09802 20081-21081

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46162F	Focus test							Fe/-	15.5
46162	HD180583	19 12.0	27° 45'	19h 12	20:26	0h 0	+27° 52.5	Fe/-	55
46162T1 ✓	spot cal for 098 test			15min @	15U D3 4810	7U D1 Hα	7U D2 5450		
46162T2	spot cal for plate 46162			15min @ 15Volts	14 D3 3900	D3 4380	D2 4810		

Spectr. Temp. 73° F ..... Dome Temp./Hum. 21°C (70°F) 89% Transparency Conditions 26

Focus 496 .....

Spectr. Temp. ..... Dome Temp./Hum. 40/26

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C.	830/.680	B.S.	IIaO-E	A			v sl red
906/907		5.93	F6I-IIb	B.C.	83/.680	B.S.	IIaOE	B	Arc Prog.	cloudy	v sl weak
							098-02 E			uneven development? high fog level!	
							IIaO-E				

27

Tues-Wed.

Date . Sept. 8-9. 1981.... Observers ... Are-Ri.....

$8^m 67^\circ$

Emulsion Batches:
Tech-E ..05031-26081
.....
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46163F	Focus Test							Fe/-	15 s.
46163	HD176155	18 53.8	+17° 14'	19^h 29	20 27	0 25 W	17° 23.5	Fe-	5-5-5
46163T	SPOT CAL FOR PLATES	46163			15 min @ 15 Volts		P4 3900	D3 4300	
46164	HD180582	19^h 12.0	27° 45	20 32	21 47	1 27 W	+27 56.8	Fe/-	5-5-5
46165	HD206778	21^h 43.2 (X)	+9 47 (Y)	21 57	22 17	0 35 E	+09 49.1	Fe/-	7-7
		wrong epoch							

Spectr. Temp. 67°F ..... Dome Temp./Hum. 62°F 85% Transparency Conditions ..... 28...

Focus ...497.....

Spectr. Temp. ..... Dome Temp./Hum. 60°F 95%

Comparison Filter Exc	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					B.C.	830/.68	B.S.	IIaO-E	A		F=497 T=67°F v.sl. red	
	100/360 P2 4810	5-6	v 5.4	F5	B.C.	830/.680	B.S.	IIaO-E	B	Arc Prog		
								IIaO-E				
	100/350	4-5	v 5.93	FGI-II	B C.	830/.68	B.S.	IIaO-E	A	Arc Prog.	F=498 T=66°F	good
	60/3		v 2.39	K2 Ib	B.C	830/.68	B.S.	IIaO-E	B	Arc Prog (sl. vel)	F 498 T=64°F CLOUDS	

29 9 10
Wed Thurs.

Date THURS, SEPT 10, 1961 Observers GIS - Tn

Emulsion Batches:
IIaO E 05031 - 08091
20 1.96

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46166	HD 36576	$5^h 27.7^m$	+18° 28'	4:37	5:20	$1^h 11^m$ E	+18° 32'	Fe/-	5-5-5
46166T	SPOT CAL'N FOR 46166				15 min @ 15V		D4 3900	D3 4300	D2 4x10

Spectr. Temp. 60°F Dome Temp./Hum. 58°F/90% Transparency Conditions Some haze, cloud 3.0

Focus 500

Spectr. Temp. 60°F Dome Temp./Hum. 58°F/90%

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
–	5.2	400/178	5"	5.71	B2 III e	BC	830/.68	BS	IIaO-E	A	Runaway ✶	Cloud!	good
									IIaO-E				

31

Thurs-Fri

Date ... Sept 10-11, 1982 Observers ... KH-TL-GIS ...

8m 68 Emulsion Batches: ... IIaO-E ... 05031 ... 08091 ... 19 1.92

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
46167	HD 186555 = 67 Aql	19h 3.8	+7° 14	19:15	19:52	00 02E	+17 22	Fe/-	5-
46168	HD 186688	19 40.8	+29 01	20:02	21:42	01 00W	+29 15	1	5-
46168T	Spot Calib For 46167-46181			15 min @ 15V		D4 3900	D3 4300	D2 4810	
46169	HR 8157 = HD 203532	21h 15.4	+37° 49	21:45	22:13	00h 02E	+35 10	Fe/-	5-5-5
46170	HD 1976	0h 18.9	+51° 28	22:19	22:38	02 42E	+51° 05	Fe/-	5-5-5
46171	HD 4180	0h 39.1	+47° 44	22:41	22:48	02 52E	+48° 10	Fe/-	7-7
46172	HD 18537	2h 53.7	+51° 47	22:52	23:08	04 47E	+52° 16	Fe/-	7-7
46173	HD 20314	3h 11.1	+43 39	23:12	23:39	04 38E	+43° 54	Fe/-	7-7
46174	HD 20365	3h 11.5	+49 51	23:50	23:56	04 19E	+50° 09	Fe/-	7-7
46175	HD 209750	22h 06	-0° 48	00:00	00:07	01 06W	-00 39	Fe/-	7-7
46176	HD 214930	22h 36.6m	+23° 19'	00:12	01:18	01 40W	+23° 45'	Fe/-	5-5-5
46177	HD 219188	23h 08.9m	+4° 27'	01:20	02:19	02 08W	+4° 54'	Fe/-	5-5-5
46178	HD 29866	4h 37.3m	+40° 36'	02:30	03:04	02 35E	+40° 45'	Fe/-	5-5-5
46179	HD 34078	5h 09.7m	+34° 12'	03:06	03:46	02 25E	+34° 17'	Fe/-	5-5-5
46180	HD 36576	5h 27.7m	+18° 28'	03:50	04:18	02 10E	+18° 31'	Fe/-	5-5-5

Spectr. Temp. 67°F ..... Dome Temp./Hum. 165°F/91% .

Focus ..... 197 .....

Spectr. Temp. ..... Dome Temp./Hum. 155°F/99.7% .

Transparency Conditions . Slight haze, fog 32

Good Aurora display & Meteor shower

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4/104	2"	5.8	F5	8C	130/68	B5	IIa-E	B*	Ceph-Rm	(* B Bottom A Top) CT Focus 199	
100/308	2-3"	7.0	F5	"	"	B5	"	B	"	exposure meter acting up	
							"				
9.0/30	2"	6.0	F2	"	"	"	"	A	Ceph/Ejaus	T=67°	
200/160		5.48	B5-III	"	"	"	"	B	SV Cas Assc		
200/164		4.51	B5III	"	"	"	"	A	SV Cas Assc		good
200/144	2-3"	5.0	B7III	"	"	"	"	B	SV Cas Assc		
200/203	2-3"	5.90	B8I	"	"	"	"	A	SV Cas Assc		
200/201		5.09	B3III	"	"	"	"	B	SV Cas Assc		
100/52	2"	3.91	G2Ib	"	"	"	"	A	Big Ceph	Focus 199 T=63°F	
400/355	2"	7.39	B2III	"	"	"	"	B	Runaway*		
400/358	2"	7.01	B0.5II	"	"	"	"	A	Runaway*		
400/356	2"	5.87	B8IIIn	"	"	"	"	B	Runaway*		
400/352	2"	6.18	O9.5V	"	"	"	"	A	Runaway*		
400/363	2	5.71	B2II-IIe	"	"	"	"	B	Runaway*	T=61°F	

33 Cont

Thurs-Fri

Date .. Sept. 10-11 .. 1981 .. Observers .. Gus-Tn .....

8" 68 Emulsion Batches: IIaO-E* 05031-10091

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46181	HD 36576	5h 27.7m	+18° 28'	04:19	04:45	1h 43m E	+18° 32'	Fe/-	5-5-5
46182	HD 22484	3h 31.8m	+0° 05'	04:49	04:56	0h 23m W	+0° 20'	Fe/-	7-7
46182F	Focus Test					0h 24m W	+0° 20'	Fe/-	15-15

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ..... 3.4..

Focus ..... 4.99 .....

Spectr. Temp. ..... 60°F ..... Dome Temp./Hum. 153°F/.100%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/352	2"	5.71	B2IIIe	BC	830/.68	BS	IIaO-E	A	Runaway *		
40/35	2"	4.4	F8V	"	"	"	IIaO-E*	B	Std. Velocity		fine
				"	"	"	IIaO	11			ok

35 2 Visitor Tours

Date 2/13 Sept 1981 Observers Bln-Tn-JBL

Emulsion Batches:

5" 68° IIaJ-E 07119-29081
098-02E 05031-05091 No 2
8" 68° IIaD-E 05031-10091

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Ex	Exp. Mtr.
46183	HD 200120	20 56.4	+47 08	21 30	22 25	00 37W	+47 34	Fe/-	20-	
46183T	Spot Cal.	for 46183	46189		15min @	17.5V D4 3900	15V D4 4300	15V D4 4810		
46184	HD 200120	20 56.4	+47° 08'	22 33	23:07	01 17 W	+47° 34'	Fe/-	1.4	
46184T	Spot Cal.	for 46184			15min @	15V D3 4810	7V D1 N.A.	7V D2 5450		
46185	HD 184927	19h 31m 6s	-31°09'	23:15	01:51	05 37 W	+31 23	Fe/-	1.5	
46185T	Spot Cal. for	46185	-88		15min @	D4 3900	D3 4300	D2 4810		
46186	HD 20902	03 17.2	+49° 30'	01 59	02 01	02 11 E	+49 54	Fe/-	7-	
46187	HD 21071	03 13.9	+48 45	02 05	03 05	01 10E	+49 09	Fe/-	1.5	
46188	HD 14220	02 12.8	+52 07	03 08	04 13	01 06W	+52 34	Fe/-	5-5	
46189	HD 33328	05 04.4	-8 53	04 19	05 06	00 51 E	-8 39	Fe/-	20-	
46189F	Focus Test					00 51 E	-8 39	Fe/-	15-	

Spectr. Temp. 70°F ..... Dome Temp./Hum. 65°F / 81% Transparency Conditions ... hazy ... full moon ... 36.

Focus ..... 499 .....

Spectr. Temp. 64° F ..... Dome Temp./Hum. 57°F / 92%.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/200	2"	4.51	B1e	BC	830/.68	BS	IIIaJ-e	A	Bo - Bln	T= 70°F F=499	v sl strong high fog
							IIIaJ-e	(note)	A blank strip from end box (9061- 20081 to end 'X' in		
40/200	2"	4.51	B1e	BC	1200/.7	RS	098-02E	B	Bo - Bln	T= 68°F Set 498	good dust on lens?
							098-02E				
400	3"-2"	4.20	B1	BC	830/.68	BS	IIaO-E	A	Bln - no A	T=68°F F=499	fine
							IIaO-E				
40/37	3	3.27	F5 Ib	BC	830/.68	BS	IIaO-E	B	Std Vol - Bln		sl/str- fine
200/175	3-2"	6.0	B6 V	BC	830/.68	BS	IIaO-E	A	std. Vol - Bln		
400/550	2"	7.01	B2 V	BC	830/.68	BS	IIaO-E	B	Runaway *		fog
40/201	2"	4.07	B2 IV	BC	830/.68	BS	IIIaJ-E	A	Bo Bln	T=69°F F=499	v sl str.
				BC	830/.68	BS	IIaO	B		T=69°F F=499	sl. red

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Date 13/14 Sept. 1981. Observers Gris - Tn
Sun./Mon.

8m 68° Emulsion Batches: IIaO-E 05021 - 10091 20 1.76

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
46190	HD 186791	19h 41m 5	+10° 22'	18:59	19:03	1h 28m E	+10° 36'	Fe/—	7-7
46190F	Focus Test					1h 33m E	+10° 36'	Fe/—	15-15
46191	HD 187567	19 45.4	+7 39	19:09	19 52	0 44 E	+7° 51'	Fe/—	5-5
46192	HD 184927	19 31.6	+31 04	19:56	22 : 48	2 27 W	+31 13	Fe/—	5-5
46190↓	* Spot Calib for	46190-92.			15mm @ 15V	D4 3400	D3 4300	D2 4810	

Full Moon

Spectr. Temp. 72.5°F ..... Dome Temp./Hum. 69°F / 72% Transparency Conditions .Sl. hazy - cloudy 38

Focus 49.6 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... / .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/37	2"	4.1	K3 II	BC	830/.68	BS	IIaO-E	A	Std. Velocity		fine comp sl strong
				BC	830/.68	BS	IIaO	A		T=72.5 F=496	sl red
200/175	2"	6.42	B2.5 IIe	"	"	"	IIaO-E	A	Runaway*		sl strong
400/343	2.5"	7.30	B2 II$_p$	"	"	"	IIaO-E	B	Bln-He*	cloud T=71°F * must link to Intensive "90" Lunar region 91 or 92	v. sl strong
							IIaO-E				

39

Date 14/15 Sept. 1981 Observers G.S. - T.
Mon / Tues.

Emulsion Batches:
IIaO-E 05031 — 10.0.91 .21 1.94
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46193F	Focus Test					0h 05m W	0° 0′	Fe/—	15-15
46193	HD161096	17h 38m.5	+4° 37′	19:02	19:06	0h 42m W	+4° 37′	Fe/—	7-7
46194	HD187567	19 45.4	+7 39	19:09	20:02	0 29E	+7 53	Fe/—	7-5-5
46194T	Spot Calib for	46193-	46200	15 min @ 15V		D4 3900	D3 4300	D2 4810	
46195	HD 195907	20 29.0	+31 19	20:10	23:11	1 58W	+31 37	Fe/—	5-5-5
46196	HD 203064	21 4.7	+43 31	23:15	23:36	1 37W	+43 54	Fe/—	7-7
46197	HD 210839	22 08.1	+58 55	23:40	00:03	1 11W	+59 20	Fe/—	7-7
46198	HD 3950	0 37.0	+51 48	00:07	01:54	0 32W	+52 13	Fe/—	5-5-5
46199	HD 11606	1 48.6	+58 47	01:58	03:40	1 05W	+59 11	Fe/—	5-5-5
46200	HD 34078	5 09.7	+34 12	03:46	05.04	0 51E	+34 16	Fe/—	5-5-5

Spectr. Temp. +70.5°F..... Dome Temp./Hum 65°F/88%. Transparency Conditions . some cloud.....40..

Focus ....497.....

Spectr. Temp. ..+59...°F..... Dome Temp./Hum. +54/90%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.68	BS	IIaO	A			
40/30	4"	3.9	K2 II	"	"	"	IIaO-E	A	Std. Velocity	messy labelling "31" over	
400/350	3-4	6.42	B2.5 IVe	"	"	"	"	B	Runaway *		F-g
							IIaO-E				
450/250	3-4"	7.85	B1.5 Ve	BC	830/.68	BS	"	A	Runaway *	T=70°F clear	v s/wk
200/182	3"	4.98	O8 V	"	"	"	"	B	Runaway *	T=63°F F:499	s/sk
350/176	2-3"	5.29	O6 f	"	"	"	"	A	Runaway *		F-g
400/350	2-3"	7.05	B1 II	"	"	"	"	B	Runaway *		v s/wk
400/350	2"	7.08	B.5 Ive	"	"	"	"	A	Runaway *	T=61°F	F-g
400/352	3"	6.18	O9.5 V	"	"	"	"	B	Runaway *	clear	fair

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Date 15/16 Sept. 1981 Tues./Wed. Observers Gris-Tn

Emulsion Batches: IIaO-E 05031 -13091

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46201F	Focus Test					0h 00m	+0° 00′	Fe/—	15-15
46201	HD 161096	17h 38m.5	+ 4° 37′	18:57	19:02	0 41W	+ 4° 37′	Fe/-	7-7
46202	HD 187567	19 45.4	+ 7 39	19:06	19:44	0 43E	+ 7 48	Fe/—	5-5
46202T	Spot Cals for 46201-08				15 min @ 5V		04 3900	03 4300	02 4800
46203	HD 192281	20 09.0	+39 58	19:47	21:50	1 01W	+40 09	Fe/—	5-5
46204	HD 203064	21 14.7	+43 31	21:53	22:08	0 12W	+43 49	Fe/—	7-7
46205	HD 3950	0 37.0	+51 48	22:13	0:09	1 08E	+52 11	Fe/—	5-5
46206	HD 220057	23 15.7	+60 37	0:14	1:04	1 07W	+61 00	Fe/-	5-5
46207	HD 11606	1 48.8	+58 47	1:09	2:21	0 11E	+59 06	Fe/-	5-5
46208	HD 16429	2 33.1	+60 51	2:27	4:32	1 16W	+61 08	Fe/—	5-5

Spectr. Temp. 63°F ..... Dome Temp./Hum 63°F / 68% Transparency Conditions some cloud 4-2

Focus ..... 4.99 .....

Spectr. Temp. 56°F ..... Dome Temp./Hum 50°F / 95%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.68	BS	IIaO	A			Red guard comp. str.
40/32	2-3"	3.9	K2III	"	"	"	IIaO-E	B	Std. Velocity		
400/350	"	6.42	B2.5Ie	"	"	"	"	A	Runaway *		
							IIaO-E				
400/350	2	7.93	O5f	BC	830/.68	BS	"	B	Runaway *		vs/wk
300/179	1-2"	4.98	O8II	"	"	"	"	A	Runaway *	T=61°F	
400/360	1-2"	7.05	B1III	"	"	"	"	B	Runaway *	some cloud	
400/352	2-3"	6.94	B2II	"	"	"	"	A	Runaway *	T=60°F F=500	
400/351	1"	7.08	B2Vne	"	"	"	"	B	Runaway *		vd/wk
400/246	1-2"	8.29	O9.5III	"	"	"	"	A	Runaway *	T=58°F Thin cloud F=501 (broken 3 yrs.)	sl/wk

43

Wed-Thurs

Date Sept. 16-17, 1981 ..... Observers K.K.-T.m .....

Emulsion Batches: 8m 68° IIaO-E ... 05021 ... 16091

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46209	B Cyg (Brt Comp) HD 183912	19 26.7	+27 45	21 07	22 32	2 28W	+27 56	Fe No/W 66	5-55
46209T	Spot Cals for 46209		15'	D4 3600	D4 3900	D3 4100			
46209F	Focus test.					2 28W	+28	Fe Ne/W 66	25 25
	17/18 Thurs/Fri	Km-Tm							
46208T1	Tests of possible contamination of clear areas of plate by Fe Arc							Fe/—	3sec
T2						0 0	+10		8sec
T3									16 sec
T4									32 sec
T5									64 sec
T6									100 sec
T7									160 sec

Spectr. Tem
Focus ... 9
Spectr. Tem

Exp. Mtr.

4.1/23

T = 54°

Spectr. Temp. +62°F ..... Dome Temp./Hum +56°F/89% Transparency Conditions ..Cloudy..... 44

Focus ....499.....

Spectr. Temp. +61°F ..... Dome Temp./Hum +56°F/.....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
20/93		V= 3.24	KSII? +B?	BC	1200/.2	150/5	IIaO-E	B	Asm Spec/KK		sl weak
							IIaO-E				4100 sl wk
				"	"	"	IIaO-e	B			sl red
T= 54°F		Focus	set to 503					using	IIaO-E 05031-13091		
				EC	53%/.05	.03	IIaOE	B	Test		
								A			
								B			
								A			
								B			
								A			
								B			

45 Large RASC Tour Ring Nebula 2 hrs

Fri - Sat

8" f6.8 Emulsion Batches: IIaO-E 05031 - 16091

Date .Sept 18-19/81..... Observers ..Gies-Tn.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46210F	Focus Test					0 0	-16°	Fe/-	15-15
46210	HD 161096	17 38.5	+4 37	19 28	19 33	01 23W		Fe/-	7-7
46211	HD 197449	20 38.5	+35 06	21 19	22 32	1 25W	+35 19	Fe/-	5-5-5
46211T	Spot Calib for	46210-15			15min@15V	D4 3900	D3 4300	D3 4810	
46212	HD 219188	23 08.9	+ 4 27	22:37	00:29	0 49W	+ 4 51	Fe/-	5-5-5
46213	HD 3950	0 37.0	+51 48	00:33	01:58	0 51W	+52 11	Fe/-	5-5-5
46214	HD 29866	4 37.3	+40 36	02:04	02:58	2 10E	+40 41	Fe/-	5-5-5
46215	HD 36576	5 27.7	+18 28	03:01	03:48	2 09E	+18 28	Fe/-	5-5-5

Spectr. Temp. +60°F ..... Dome Temp./Hum +55°F / 89% at 19hrs Transparency Conditions ..Some cloud ..hazy....

Focus ...-0.0.....

Spectr. Temp. +53°F ..... Dome Temp./Hum. +44°F / 100% Aurora seen very good. with "Red" rays thru cloud by 03hrs

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/68	BS	IIaO	A			sl RED
40/23	2"	3.9	K2 III	BC	"	"	IIaJ-E	A	std vel	Four	Fine
200/350	2"3	6.52	B9 Ve	BC	830/68	BS	IIaO-E	A	Runaway *	cloud	
							IIaO-E				
00/350	3"	7.01	B0.5 III	BC	830/.68	BS	IIaO-E	B	Runaway *	T=58°F F=501	
00/350	3"	7.05	B1 III	"	"	"	"	A	Runaway *	T=56°F	
00/176	3"	5.87	B8 IIIn	"	"	"	"	B	Runaway *		
00/164	2"	5.71	B2 Ve	"	"	"	"	A	Runway *		

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SAT-Sun

Date . Sept. 19-20/81 . . . Observers . JBL-TD . . . . . .

8m 68° Emulsion Batches: II a O-E 05031 -19091 .19 1.96

4m 68° 098 a E 05031 -05091 .43 1.92

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46216	HD 161096	17 38.5	+4 37	18 55	18 59	0 53W		Fe/—	7-7
46217	HD 173654 B	18 41.3	−1 04	19 14	21 37	2 29W		Fe/—	5-5 5
46217T	Spot Calib	for 46216	−22		15 min @ 15V	D4 3900	D3 4300	D2 4810	
46218	HD 173654 A	18 41.3	−1 04	21:39	22:25	3:17 W	−0 52	Fe/—	7-7
46219	HD 209625	21 59.7	−1 23	22:31	22:53	0:26 W		Fe/—	7-7
46220	HD 6116	00 57.3	+10 48	22:56	23:34	1:49 E		Fe/—	7-7
46221	HD 11257	01 45.6	+10 33	23:38	00:49	1:22E	+10 59	Fe/—	7-7
46222	HD 16861	02 37.1	+10° 19′	00:55	01:49	1:14 E	+10 40	Fe/—	7-7
46223	〃	〃	〃	02:00	03:57	0:54W	〃	Fe/—	4-4
								Ne/—	4-14
46223T	Spot Calib for 46223			15 min @	15V D3 4810	7V D1 Hz	7V D2 5950		
46223F	Focus Test							Fe/—	25-25

Spectr. Temp. +56°F ..... Dome Temp./Hum. +53°F / 90% ..... Transparency Conditions ..... some cloud ..... 48.

Focus ..... 501 .....

Spectr. Temp. +51°F ..... Dome Temp./Hum. +45°F / 100%+ .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/28	2"	3.9	K2 III	BC	830/68	BS	IaJ-E	B	st/Vel		
00/350	2-4"	8.1	Am	"	"	"	"	A	Am stars	clouds	good
							"				
00/175	3"	5.8	Am	BC	830/68	BS	IaJ-E	B	Am star	T=56°F	fine
00/175	3"	5.5	Am	"	"	"	"	A	"		v sl str
00/182	2-4"	6.1	Am	"	"	"	"	B	"		v sl str
00/180	3"	6.2	F0 V	"	"	"	"	A	"	some cloud	fine
00/350	4"	6.3	A2 V	"	"	"	"	B	"	T=53°F Set 502	fine
0/	2	"	"	"	1200/7	RS	098 02E	A	"	T-5215 Set 502	some fog fine
							"			Set 502 check 46184 ▽ dust on	RS ?
				KK-	1200/7 urgent	RS	098E	B			center Red
								more	IaJ to be cut and evacuated		
								in	Dome.		
				No - No 098		4-5 left,			some needed before C98 sq used.		
				J left	Change	098	for in		another hour.		

Comparison pe/Filter Exp.

49

SUN-MON.

Date Sept. 20-21/1981. Observers G.S.-Tn

8h 68° Emulsion Batches: IIaO-E 05031 — 19091

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46224F	Focus Test					0h 05m W	0° 00′	Fe/—	15-15
46224	HD 161096	17h 38m.5	+ 4° 37′	18:50	18:54	0 52W	+ 4° 36′	Fe/—	7-7
46225	HD 172488	18 35.4	- 8 49	18:59	22 01	3 02W	- 8 43	Fe/—	5-5-5
46225T ✓	Spot Calib	for 46224-			15 min @	15V	D4 3900	D3 4300	D2 4510
46226	HD 3950	0 37.0	+51 48	22:08	23:46	1 15E	+52 13	Fe/—	5-5-5
46227	HD 14220	2 12.8	+52 07	23:52	1:30	1 07E	+52 30	Fe/—	5-5-5

Spectr. Temp. 55°F ..... Dome Temp./Hum. 52°F / 88% Transparency Conditions ... Fine ... s.s. South. to ... 50

Focus ... 502 .....

Spectr. Temp. ... 50 ..... Dome Temp./Hum. 42°F / 100%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.68	BS	IIa-O	A		T = 54.5°F F = 502	
40/26	4"	3.9	K2III	"	"	"	IIaO-E	B	Std. Velocity		fine
00/305	3"	8.16	B0.5V	"	"	"	"	B	Runaway *		good
							"				
00/351	3"	7.05	B1III	BC	830/.68	BS	"	A	Runaway *	Some clouds	
0x/216	3"	7.01	B2V	"	"	"	"	B	Runaway *	T = 50°F some cloud	

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Tues. - Wed.

Date Sept. 22-23/1981 Observers ...Gus...Jn.....

Emulsion Batches:
IIaO-E.....
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
46228	HD219188	$23^h\ 08.^m9$	$+4^\circ\ 27'$	22:52			$+4^\circ\ 52'$	Fe/—	5

Spectr. Temp. 53°F ..... Dome Temp./Hum. 47°F/96% Transparency Conditions 52

Focus 502 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Comparison Type Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
~~f/ f~~	~~1009/ ..~~	4"	701	~~Bos III~~	~~BC~~	~~830/68~~	~~BS~~	~~IIaO E~~	A	~~Ramadan *~~		

53

Date ...Sept 23/24..... Observers ...Wh/Ri.....

8h 68 Emulsion Batches: IIaO-E 05031-19091. 20 1.99

4h 60 2415

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
46228	HD 154417	17h 0.2m	0° 51′	19h 20m	19 37		+00° 43′	Nc/ND	12/12
46229	HD 182572	19h 20.2	11° 44	19 41	19:48	00h 18w	+11° 53	Nc/ND	12/12
46230	HD 187691	19h 46m.2	+10° 16′	19.52	20.00	00h 04w	+10° 21	Nc/ND	12/12
46230F	focus test							Nc/ND	2/1
46231	Sw Cyg #1	19 40.8	+29 01	20h 17m	21 47	1h 58w.	+29° 12′	Nc/ND	8/8
31f	focus test	—	—					Nc/ND	10/10
46232	HD 212943	22h 22.8	+4° 12′	22h 07m	22h 12m	0h 20mE	4° 21m	Nc/ND	12/12
33	HD 222368	23h 34m.8	+5° 05′	22h 16m	22h 19m	1h 25mE	5° 32	Nc/ND	12/12
34	HD 213 014			22h 25m	23:01	0 28w	17° 09	Nc/ND	8/8
34F	focus test	-	—					Nc/ND	2/1
✓46235	V1016 Cyg	19 53.6	+39 33	00 02	00 47	04 45w	39° 46	Fc/ND	9/7
46235T ✓	spot cal for plate	46238 - 34			15mm @ 7U @ D3 5450				
46236	HD 3765			1h 41m	2h 08m	1h 28w	40° 04	Nc/ND	8/8
36F	focus							/ND	20/20
46236T	spot cal for plate	46235		15mm @ 15U dt5		D4 3950	D3 4370	D2 4810	

Spectr. Temp. ..... Dome Temp./Hum. 50°F/82% Transparency Conditions ... good .....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
00/30	4"	5.9	GOII	BC+IT	1200/.475	150/.5	2415	1	Std Vel.	IJ. test o.	
/30		52	GEIII	"	"	"	"	2	"		
200/30		V= 5.11	F8II	"	"	"	"	3	"		
"				"	"	"	"	4			
800/76				"	"	250/.3	"	1	Evans	new film	
—						"	"	2			
200/31		B= 5.9	KOIII/II	BC+IT	"	150/.5	"	1	Std Vel		
200/32					"	"	"	2	"		
400/60		7.7	G8				"	3	"	Take arc & flat [illegible]	
								4			
800/—		10 U	[ ]	BC	830/.66	250/.5	IIaD E	A		focus 502 T 52°F	
							2415				
1400/60		7.36	dK5	BC+IT	1200/.475	150/.5		1	"	Take std & spectral [illegible]	
—								2			
							IIaO-E				

OVER →

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Cont

Date ... Sept. 23/24 ... Observers ... Wh, R: .....

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46237	HD8779	$1^h 21^m.4$	$-0° 55'$	$2^h 24^m$	$2^h 45^m$	$1^h 13$ U	$-00° 30'$	Ne/ND	8/8
37F	focus							"	20/20
46238	HD 9138	$1^h 24.9$	$+5° 38$	$2^h 54^m$	$2^h 59^m$	$1^h 25$ W	$+6° 2'$	Ne/ND	12/12
39	HD26162			$3^h 05^m$	$3^h 13^m$	$1^h 00$ E	$+19° 33'$	Ne/ND	12/12
39F	focus	—							
46240	HD29587			$3^h 21^m$	$3^h 43^m$	$0^h 53$ E	$+2° 03'$		8/8
40F	focus	—							
46241	HD 16523	$2^h 33.9$	$+56° 18'$	$3^h 59^m$	05:29	$02^h 44$W	$56° 38$	AE/ID	5/8

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ... excellent .....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .. 40°F 96% .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/60	2-3"	B 6.5	gKO	BC+IT	1200/-475	150/.5	2415	1	std Vel.		
								2	"		
400/60		5.1	KOI	"	"	"	"	1	"		
400/65		5.5	KOII	"	"	"	"	2	"		
								3			
400/60		7.3	aG2					1	"		
								2			
800/87		10.5	wc6		1200/...	150/...	"	1	wk. WR		

57

Date Sept. 24/25 '81 Observers Rvw - Ri

8m 68 Emulsion Batches: Tmax-E 050SL-21091. 19 2.00

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46241F	Focus Test							Fe	15s
46242	HD178583=HR7358	19h 12.0	+27°95	18:43	19:07	00 10 E	+27° 51	Fe/NB	5-5-
46241T	Spot Calib for	46242-43		15 min @ 16v		Δ4 3406	D3 43500	D2 4510	
46243	HD178359=TTHyi	19h 03.2	+01°08	14:12	21:29	2h 19W	01° 15	Fe/NB	5-5-5

Spectr. Tem
Focus
Spectr. Tem
Exp Mtr.

Spectr. Temp. 57°F Dome Temp./Hum. 54°F 68% Transparency Conditions 58

Focus 501

Spectr. Temp. 56°F Dome Temp./Hum. 50°F 80%

40/31

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/13	Bs	IIaOE	A		cent S/Red	
400/350	3	6.7	F6T-IIB	BC	"	"	IIaOE	B	Cepk/Evans	Fe s/wk	Fine
							IIaOE				
400/585	3	7.5	60	BC	"	"	IIaOE	A	Bin Cepk/Evans	Fe s/wk cloudy	Fine

59

Sun - moon

Date Sept. 27-28/81 Observers W.r.-T.n

Emulsion Batches: 8m 68° IIa-O-E 05031 - 21341 (n 1.96

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46244	HD 187567	19 45.4	+7 39	18 59	19 41	00 02W	+7 54	Fe/-	7-7
46244T	Spot Cals for	46244			15m-0	45V	V4 3400	D3 4300	D5 4800
46244T$_2$	exposure calib	Hollow cathode						Helium cath/ND	1 sec
T$_3$								"	1 sec
T$_4$								"	2 sec
T$_5$								"	4 sec
T$_6$								"	8 sec
T$_7$								"	16 sec

Spectr. Temp. ~65°F ..... Dome Temp./Hum. ~60°F / 66% Transparency Conditions . very gusty Clear, a little hazy. Exp. 60 ..

Focus ..... 499 .....

Spectr. Temp. ..... Dome Temp./Hum. ...../.....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
200/175	2"3"	6.42	B25UVc	EC	830/.58	BS	IIa-E	A	Runaway	Clear	Fe 51 4X Sh
							IIa-E				
				BC+IT	1200/.475	150/.5	2415	1		short exposures may not	
								2		be correct, due to	
								3		misfire problems with	
								4		Fe/Ne lamp with supply.	
								5			
								6			

6

Date Mar Tues Sept 28-29 1981 Observers A-G-Cy-R-Bl

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
			Tests + adjustments						
46245	HD 196867	20h 35.0	+15° 34	19:31	19:40	00h 44E	+16°01	Ne	10, 20, 30, 40, 60, 80sec
46246	Focus tests							Ne	80sec
"	HD 196867	20h 35.0	+15° 34	21:09	21:17	00h 52W	+16° 02	Ne	80sec
46247	HD 196867	20h 35.0	+15° 34	21:26	21 34	01h 09 W	+16°02	Ne	80sec
"	HD 203504	21 17.5	+19°23	21:42	22:24	01h 16 W	+19° 55	Ne	80sec
"	"	"	"	22:30	22:40	01h 33W	+19° 55	Ne	80sec 80sec
"	"	"	"	22:46	23:03	01h 55-W	+19°55	Ne	80sec Base
"	HD 217906	22 58.9	+27°32	23.11	23:56	01h 07W	+28° 11		
"	HD 218329	23 02.0	+08°52	00.00	00:28	01h 28W	+09 30'		

Spectr. Temp. ..... Dome Temp./Hum. 48°F 68% Transparency Conditions 6-2

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
10s, 20s, 40s, 80s, 2½ min	6"	3.71	B9 IV	NEWTON SPECT.	1200/4.20	50µ/120	IIIaO		MK-Stal	F = 5.02 T = 44°F	
2½ min, 5 min	5-6	3.7	B9 IV	"	1200/4.20	50µ/1.2mm	IIaO		MK-Stal	F = 5.02 NEW BATCH	
2½ min, 5 min	6-8	3.7	B9 IV	"	"	"	"		"		
2½, 5, 10, 20 min		5.19	K1 III	"	"	"	"		"		
10 min		"	"	"	"	"	"		"	F = 5.00 T = 40°F	
17 min		"	"	"	"	40µ/1.2	"		"		
2½, 5m, 10m, 20 min		4.22	M2.5 II III	"	"	40µ/12	"		"		
2½, 5m, 10 min		6.06	M1 IIIab	"	"	"	"		"	clouded out	

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Emulsion Batches:

Date Tues.-Wed. Sept. 29-30 Observers G.-R.-G.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46248	HD 182835	19 21.2	+00°08	18:53	19:04	00h04E	+00 30	Ne	80 sec
"	HD 231195	19 16.1	+14°14	19:16	21:17	02h15W	+14 33		
"	HD 206859	21 39.8	+16°53	21:22	22:04	00h37W	+17 26		
"	HD 207089	21 41.5	+22°29'	22:08	22:49	01h21W	+23°02		
"	HD 208057	21 48.5	+25°27	22:53	23:18	01h43W	+26°01	Ne	80 sec
46249	HD 3690	0h34.7	+20°53	23:32	23 36	00h44E	+21°30'	Ne	80 sec
"	HD 3651	0 39.2	+20°43	23:39	00:21	00h00	+21°19'		
"	"	"	"	00:22	00:30	00h09W	+21°19'		
"	"	"	"	00:30	00:37	00h W	"		
"	"	"	"	00:37	00:41	00h20W	"		
"	"	"	"	00:41.17	00:43.7	00h22W	"	Ne	80 sec
"	HD 9270	01 26.1	+14°50	00:50	01:14	00h01W	+15°25'		
"	HD 10761	01 40.1	+08°39	01.17	01:38	00h12W	+09°13		
"	HD 11443	01 47.9	+29°06	01:42	01:52	00h	+29°40	Ne	80 sec
46250	HD 11636	01 49.1	+20°19	02:03	02.08	00h32W	+20°53	Ne	80 sec

Spectr. Temp. ..... Dome Temp./Hum. 48°F./80% Transparency Conditions 64

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
.5sec 30sec 1, 2, 5 min	4	5.23	F2Ib	NEWTON SPECTR.	1200/ 4.20	40µ/ 1.2mm	IIaO		MK-STD	F 5.00	
2 hrs	2-3	9.38	F5Ia	"	"	"	"		"	some cirrus clouds 1/3 msg last 1/2 hr	
1 2, 5 10, 30 min	4-6	5.54	G5Ib	"	"	"	"		"	clouds	
2½, 5, 10 20 min	3	6.7	K0Ib	"	"	"	"		"	clear again	
1, 2, 2½ 5, 10 min		4.89	B3V	"	"	"	"		"		
2½ 2½ min		6.3	K CII-III	"	"	"	"		"		
2½ 5 10 20 min		6.7	K0 V	"	"	"	"		"		
7½		"	"	"	"	40/ 1.8mm	"		"		
6½ min		"	"	"	"	40µ/ 1.6mm	"		"		
1 "		"	"	"	"	40µ/ 1.4mm	"		"		
2 min		"	"	"	"	"	"		"	R.V. ducker wind	
30 sec 1, 2 min 2½ 5 10 min	4	4.59	G8III	"	"	40/ 1.2mm	"		"		
2½ 5 10 min	5	5.22	G8III	"	"	"	"		"		
1, 2 5 min		3.92	F6V	"	"	"	"		"		
30sec 2 min		3.78	A5V	"	"	"	"		"		

65.

Date Tues-Wed Sept 29-30 '81 Observers A-R.

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
4 6250	HD 21120	3 19.5	+8°41	02:12	02:29	00"36E	+09°08		
"	HD 23850	3 43.2	+23°45	02:37	02:42	00"47E	+24°10		
"	HD 23862	3 43.2	+23°50'	02:45	03:04	00"25E	+24°15		
"	HD 26015	4 02.0	+14°54	03:07	03 13	00"35E	+15°16		
"	HD 26690	4 08.2	+07°28	03:17:45	03:21:45	00"32E	+07°49		
"	HD 27383	4 14.2	+16°18'	03:27	03 46	00"15E	+16°38		
"	HD 27397	4 14.3	+13°48	03:48	03:54	00"07E	+14°09		
"	HD 27524	4 15.6	+20°49	03:56	04 14	00"12W	+21°10		
"	HD 27808	4 18.3	+21°30'	04:17	04:56	00"51W	+21°52	No	Some

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ... Good ..... 66 ...

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. ... 40°F 99%

Exp. ~~Min.~~	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
½ 5 10 min		4.48	GB III	NEWTON SPECTR	1200/4.20	40µ/1.2m	IIaO		Mk-Std		
30sec 1,2 min		3.54	BB III	"	"	"	"		"		
2½, 5 10 min		5.01	BB P	"	"	"	"		"		
6 min		6.41	F3 V	"	"	40µ/1.6	"		"		
4 min		5.72	F3 V			40µ/1.6	"		"		
20 min		7.44	F9 V	"	"	"	"		"		
5 min		5.87	F0 IV	"	"	"	"	"	"		
3 min		7.23	F5 V	"	"	"	"	"	"		
39 min	5 2-3	7.66	F8 V	"	"	"	"	"	"	F=5.00	

67 Two Image Tests 2 hrs 8h 68°

Sat-Sun

Date Oct 3-4 81 Observers JRL-Jr

Emulsion Batches: IIaO-E 03051 - 27091 22,202

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
46251	HD 209625	21 59.7	-1 23	21:10	21:45	0:14 W		Fe/—	5-5-	4 1/2/3
46252	HD 205117	21 28.1	+48 03	21:53	01:16	4:19 W	+48 21	Fe/—	5-5-	4 1/2/3
46252V	Spot Calib	for 46251-54		15min @ 15V		D4 3901 D3 4335	D3 4810			
46253	HD 3712	0h 34.8	55° 59	01:21	01:24	01:18W		Fe/-	7-7	4 1/2/3
46254	HD 20135	3h 9.1	+47° 39	01:32	04:57	02:15W	+48 53	"	5-5-	4 1/2/3
46254F	Focus Test for newly aligned				PNE	"	"	Fe/-	15-15	

Spectr. Temp. +48°F ..... Dome Temp./Hum. +41°F/10% Transparency Conditions .. Some Cloud ... 68 ...

Focus ..... 501.5 .....

Spectr. Temp. +42° ..... Dome Temp./Hum. +35°F/103%

NEW D·19

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	400/175	2-3	5.51	Am	BC	830/68	BS	IIaO-E	A	Am stan		fine
	400/350	3"	7.66	Am	"	"	BS	"	A	"	Cloud	fine
								"				
7-2	40 /≥ 30	3"	2.5	KoII	BC	830/68	BS	IIaO-E	A	Std. Vel.	Set 50 ⊃	fine
"	400/356	2-3"	8.3	Am	"	"	"	"	A	Am stan	clear	fine
					"	"	"	"	B		Set 50 ⊃	Vs/Blue

69 THURS - FRI

Date Oct. 8-9, 1981 Observers ....GIS-Tn.....

8m 68° Emulsion Batches: IIaO-E 03051 -2?7?1

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46255 ✓	HD 187567	19h 45m.4	+7° 39′	18:17	18:56	0h01mE	+7° 53′	Fe/-	5-5-5
46255T	Spot Calib for 46255-62			15 min @ 15U 3900	D4	D3 4.33	D3 4.10		
46256	HD 195907	20 29.0	+31 19	19:00	21:15	1 35W	+31 37	Fe/-	5-5-5
46257	HD 184927	19 31.6	+31 04	21:23	0:01	5 20W	+31 16	Fe/-	5-5-5
46258	HD 3950	0 37.0	+51 48	0:06	0:53	1 05W	+52 15	Fe/-	5-5-5
46259	HD 14220	2 12.8	+52 07	0:58	1:55	0 29W	+52 29	Fe/-	5-5-5
46260	HD 16429	2 33.1	+60 51	2:00	4:48	3 01W	+61 12	Fe/-	5-5-5
46261	HD 34078	5 09.7	+34 12	4:52	5:22	0 58W	+34 18	Fe/-	5-5-5
46262	HD 36576	5 27.7	+18 28	5:26	5 51	1 09W	+18 32	Fe/-	7-7
46262T	Focus					"	"	Fe/-	5-5-5

Spectr. Temp. 51°F ..... Dome Temp./Hum. 47°F/86% Transparency Conditions ... Fine ..... 7.0.

Focus .. 501 .....

Spectr. Temp. 43°F ..... Dome Temp./Hum. 35°F/102%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
00/177	2"	6.42	B2.5 IIe	BC	830/.68	BS	IIaO-E	A	Runaway *		
							IIaJ-E				
00/350	2"	7.85	B1.5 Ie	BC	830/.68	BS	IaO-E	B	Runaway *		
00/400	3-4"	7.30	B2 II p	"	"	"	"	A	Bln-He *	T=49°F F=501	
200/180	2"	7.05	B1 II	"	"	"	"	B	Runaway *	T=46°F F=502	
200/175?	1"	7.01	B2 I	"	"	"	"	A	Runaway *		
00/350	2"	8.29	O9.5 II	"	"	"	"	B	Runaway *	T=45°	
00/175?	"	6.18	O9.5 I	"	"	"	"	A	Runaway *	T=44° F=503	
200/175	"	5.71	B2 I-II e	"	"	"	"	B	Runaway *		
							"	A		Set 503	

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FRI-SAT

Date Oct. 9-10, 1981 Observers GIS ... Tn

8"68° Emulsion Batches: II.a.O:E 03051 – 02101 22 192

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46263F	Focus Test					0h 00m	+0° 00′	Fe/–	15-15
46263	HD 186791	19h 41.5m	+10° 22′	18:13	18:16	0 33E	+10 32	Fe/–	7-7
46264	HD 191566	20 05.5	+35 11	18:22	19:48	0 35W	+35 24	Fe/–	5-5-5
46264T	Spot Colr	Test (done earlier today)		15 min	@ 7V DJ				
46265	HD 219188	23 08.9	+4 27	19:51	20:47	1 29E	+4 52	Fe/–	5-5-5
46265T	Spot Colr	for plates	46263-	15min @	15V	D4 3900	D3 4300	D2 4800	
46266	HD 192281	20 09.0	+39 58	20:52	22 36	3 21W	+40 11	Fe/–	5-5-5
46267	HD 3950	00 37.0	+51 48	22:40	23:35	0 10E	+52 12	Fe/–	5-5-5
46268	HD 220057	23 15.7	+60 37	23:39	0:31	2 07W	+61 03	Fe/–	5-5-5
46269	HD 4142	00 38.9	+47 19	0:35	0:53	1 06W	+47 46	Fe/–	7-5
46270	HD 11606	01 48.8	+58 47	0:59	1:56	0 58W	+59 12	Fe/–	5-5-5
46271	HD 14220	02 12.8	+52 07	2:00	3:03	1 42W	+52 28	Fe/–	5-5-5
46272	HD 30650	04 44.4	+43 24	3:08	5:14	1 19W	+43 33	Fe/–	5-5-5

Spectr. Temp. 49°F ..... Dome Temp./Hum. 46°F / 78% Transparency Conditions Clearing - thin cloud 72

Focus 50.1 .....

Spectr. Temp. 44 ..... Dome Temp./Hum. 137F / 100%+

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.68	BS	IIaO	B		1" missing	
40/39	1"	4.1	K3II	"	"	"	IIaO-E	A	Std. Velocity		fine *
400/350	1"	7.26	B0.5V	"	"	"	"	B	Runaway *		v sl str
							IIaF				
00/350	2"	7.01	B0.5II	BC	830/.68	BS	IIaO-E	A	Runaway *	T=49°	fine
							IIaO-E				
400/355	1-2"	7.93	O5f	BC	830/.68	BS	IIaO-E	B	Runaway *		fine
200/175	1"	7.05	B1II	"	"	"	"	A	"	T=47°F	v sl. str.
00/178		6.94	B2III	"	"	"	"	B	Runaway *		fine
00/175	2"	553	B5V	"	"	"	"	A	Runaway *	T=45°F F=502	v sl str.
00/175	1"	7.08	B2Ine	"	"	"	"	B	Runaway *		fine
200/175	1"	7.01	B2V	"	"	"	"	A	Runaway *	<50 and 71 cloud	
400/333	1"	7.47	B6V	"	"	"	"	B	Runaway *	T=45°F cloud	fine

* no central shadow from slicer

73 Sun-mon

8m 68d

Emulsion Batches: IIa.0-E 05031 -10101

Date 8.1.11:12.181..... Observers KK-Tq.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46273F	Focus Test							Fe/—	15 15
46273	HD 186791	19 4.5	+10 22	18 18	18 40	0 01E	+10 30	Fe UV 66	5-5-5
46274	HD 183912	19 26.7	+27 45	18 43	19 06	0 48W		Fe P1/66	5-5-5
46275	HD 172167	18 33.6	+38 41	19 09	19 10	1 37W		Fe Mo/66	7-7
46276	"	"	"	19 13	19 14	1 41W		Fe Mo/66	7-7
46277	HD 202109	21 8.7	+29 49	19 17	19 46	0 23E		"	5-5-5
46278	HD 215182	22 38.3	+29 42	19 48	20 05	1 32E		"	5-5-6
46279	HD 3712	0 34.8	+55 59	20 10	20 17	3 18E		"	7-7
46279T	Spot calibration	15" ① 3600 D4	②	3900 D4	③ 4100 D4	15 min	for 46273-85	73-85	28.
46280	HD 18925	2 57.6	+53 07	20 22	20 39	5 20E	+53 33	Fe/—	5-5-5
46281	HD 1326 A	0 12.7	+43 27	20 54	23 28	0 18W	+43 51	Fe/—	5-5-5
46281T ✓	Spot Calib	15 UV Smo 4100 D4	(2)	4300 D3	(3) 4810 D2	for 46273-85,		Fe.	
46282	HD 18884	2 57.4	+3 42	23 36	23 39	2 17E		Fe/—	7-7
46283	HD 1323	1h 55.8 / 01m 12s.8	55 08 / +52° 07	23 52	23 19	0 24W	+55 28	Fe/—	5-5
46284	HD 20902	03h 17m.2	+19° 30'	03 23	23 24	1 07W		Fe/—	7

Spectr. Temp. 1525°F ..... Dome Temp./Hum. 45°F / 72% Transparency Conditions .. clear 74

Focus .... +1.500 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... / .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.68	B5	IIaO	B			
40/225	2"	4.1	K3II	BC	1200/+.20	150/5	IIaO-E	B	std Vel	primary mirror v. poor — much worse than seeing	sl weak
40/200		4.2	K5II+ B?	BC	"	"	"	A	AsmSpec/KK		fine
40/68		0.0	A0V	"	"	"	"	B	AsmSpec/KK		strong
40/10*		"	"	"	"	"	"	A	"	* Blue filter in any meter	sl. strong
40/225		3.8	G8II	"	"	"	"	A	"	T = 51°F	fine
40/200	2"	3.8	G8II+ F	"	"	"	"	B	"		fine
40/205		2.5	K0III	"	1200/+.20	"	"	A	StdVel	dust in tubes? 4100 sl. str. try lower voltage?	fine
40/210		3.6	G8III A3V	BC	1200/+.20	150/.5	IIaOe	B	AsmSpec/KK		fine
400/250	1-2"	V=8.07	mIV	"	1800 830/.68	150/3	"	A	"		
							"			4100 sl. str.	
40/35	3"	2.8	M1.5III	BC	830/.68	150/.5	IIaO-E	B	std Vel		
[illegible]	1"-6"	[illegible]	[illegible]	BC	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	S = +50 [illegible]	wrong grating
40/30	-2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	

Page #2

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Date ..... Observers .....

5m 68° Emulsion Batches: IIIa-J-E 07119-04101 .37 31 2

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46 85	HD 21071	03 18.9	+43° 45'	03:28	03:46	01 2 W	+42° 59'	Fe/—	7-7
46286	HD 333 38	03 34.1	- 8 53	03:50	04:15	00 12 W	- 8 50	Fe/—	20-20
46287	HL Sx4h3	03 33.7	-2° 39'	04 18	04:37	00 01 W	-2° 40'	Fe/—	20-20
46287T	Spot Calc for 46286,87.			15min @ 04	3900	4300	4810		
46288	AD 54241D	05 33.7	-2° 39'	04 41	05 57	01.25 W	-2 39	Fe/—	5-5

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions Excellent - slight haze

Focus .....

Spectr. Temp. 45°F ..... Dome Temp./Hum 40F/89% 76

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
30/120	1-2	6.0	B6V	BC	1800 ~~830~~/.68	BS	IIIa-OE	A	Std Vel - Blu		wrong grating sl str
20/200	2-3	4.0	~~G2~~ Ve	BC	~~830~~/.68	BS	IIIa-JE	B	Be - Blu		
20/202	2-3	3.1	09.5V	BC	~~830~~/.68	BS	IIIa-JE	A	OE - Blu		sl str.
200/250	2-3	6.62	B2	BC	~~830~~/.68	BS	IIa-O-E	B	VB - Blu	T Or: D	

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Mon - Tues.

Date Oct. 12-13, 1981 Observers Gis - Tn

8m 68° Emulsion Batches: IIaO-E 05031 11101

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46289F	Focus Test					0h03mW	+0° 00'	Fe/-	15-15
46289	HD 186791	19h 41.5m	+10° 22'	18:04	18:09	0h28mE	+10 30	Fe/-	7-7
46290	HD 189957	19 57.6	+41 43	18:15	20:32	1 35W	+41 54	Fe/-	5-5-5
46290F	Spot Calc for 46289-96				Kinmin @ 1.0	DA 2900	D? +1.0	? +1.0	
46291	HD 184927	19 31.6	+31 04	20:39	22:43	4 17W	+31 10	Fe/-	5-5-5
46292	HD 3950	0 37.0	+51 48	22:50	0:00	0 26W	+52 10	Fe/-	5-5-5
46293	HD 37737	5 35.7	+36 09	0:07	3:18	1 14E	+36 07	Fe/-	5-5-5
46294	HD 34078	5 09.7	+34 12	3:20	3:46	0 20E	+34 14	Fe/-	5-5-5
46295	HD 44172	6 15.3	+14 45	3:49	5:19	0 09E	+14 40	Fe/-	5-5-5
46296	HD 43112	6 09.5	+13 53	5:21	5:42	0 38W	+13 48	Fe/-	7-7
46296F1	focus test T=49° F=503							Fe/-	15-15

Spectr. Temp. +52°F ..... Dome Temp./Hum. 47°F / 81% Transparency Conditions Fair ... s/hazy ... Full Moon Humid

Focus 500 .....

Spectr. Temp. +43°F ..... Dome Temp./Hum. +37F / 100% +

78

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	~~1800~~ 600/.68	BS	IIaO	B			ok
40/35	2"	4.1	K3II	"	"	"	IaO-E	B	Std. Velocity		
400/350	2"-4"	7.83	BOIII	"	"	"	"	A	Runaway *		
							,				G11
400/350		7.30	B2I_D	BC	~~1800~~ 600/.68	BS	IaO-E	B	Bln-He *	T=50°F	wrong grating
200/175	2"	7.05	B1III	"	"	"	"	A	Runaway *	T=47°F F=502	
400/350	1-2"	8.31	09.5IIIn	"	"	"	"	B	Runaway *	+3	on
400/350	1"-2"	6.18	09.5I	"	"	"	"	A	Runaway *	T=43°F F=503	all.
200/175	2"	7.29	B6II	"	"	"	"	B	Runaway *		
200/200	1"	5.67	B1II	"	"	"	"	A	Runaway *		
				BC	1800/.68	BS	098	A			OK

9 Tues/Wed

Date 12/13 Oct 1981 Observers Bln - Tn - Smith - Colbert

Emulsion Batches: prob 07119-04101 batch 7.46
IIaJ-E
IIaO-E 05051 11101
103a-E prob 20088-27091 batch 7.42

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46297	HD 200120	20 56.4	+47° 08′	18:16	18:55	00 51E	+47° 24′	Fe/—	20-20
46298	HD 13192	9 31.6	+31° 24′	1902	2141	a3 18W	+31 10	Fe/—	5-5-5
46298T ✓	Spot Calc for 46297				15min@D4	12.5V 3900	15V 4300	15V 4810	
46299 ✓	HD 200120	20 56.4	+47° 08′	21 49	22 14	03 27 W	+47° 24′	Fe/— Ne/—	6-6 13-13
46299T	Spot Calc for 46298			15min@	15V D4	3900 D3	4300 D2	4810	
46300 ✓	HD 31071	03 18.7	+43° 42′	23 32	23 00	0312E	+43° 42′	Fe/—	55
46300T	Spot Calc for 46299			15min@	15V D3 4810	01 7V Hz	02 7V 5450		
46301	HD 20902	03 17.2	+49 30	23 05	23 06	03 04E	+49 44	Fe/—	7-7

Spectr. Temp. 54°F ..... Dome Temp./Hum. +48°F/79% Transparency Conditions ... Fine ... Hazy ... Humid ...

Focus ... 500 .....

Spectr. Temp. 47°F ..... Dome Temp./Hum. 42°F / 100% condensing Fine Aurora 80

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/200	1-2	4.51	B1e	BC	830/.68	B5	IIIa-JE	A	Be - Blu	Focus = 500 T = 54°F	v sl str high fog
100/500	2"3"	7.30	B2 II$_p$	BC	830/.68	B3	IIIa-OE	B	Blu - He *		
							IIIa-J-E				
20/100	2"		B1e	BC	1200/.7	RS	098-02E	A	Be - Blu	Set 501	exp good sl high fog
							II$_a$-O-E				
100/125	1-2	6.0	B1 I	BC	830/.68	B3	I-IIIE	B	Blu - He	T = 43°F	
							098-02E				
0/35		2.2	B5 I$_a$	BC	830/.68	B3	II$_a$-O-E	A	Blu - He	T = 47°F	

81

Date ...Oct 16/17..... Observers ...J.Bh.-R.H.s.-B.j.o.-Z.k.'

Emulsion Batches:
8m 68°. IIaOe ...05.031...11101 122 193 23 216
.....05.031...13101
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
02F	focus test							Fe/-	15"-15"
46302	HD 205331	21h 29.5m	+47° 51'	18:45	20:07	00:00		Fe/-	5"-5"-5"
46303	HD 205073	21h 27.8m	+47° 55'	21:30	00:56	04:50W		Fe/-	5"-5"-5"
03T	cal plate for	46302-	05'	15 min 15V	(1) 3900 D4	(2) 4300 D3	(3) 4810 D2		
46304	HD 20931	3h 17.4m	+48° 46'	01:55	04:43	03:25W		Fe/-	5"-5"-5"
46305	HD 44691	6h 18.0	+56° 20'	04:54	05:12	00:11W		Fe/-	5"-5"-
05T	cal plate for	46306		15 min 15V	(1) 3900 D4	(2) 4300 D3	(3) 4810 D2		
46306	HD 28226	4h 22.1	+21° 24'	05:20	05:47	02:44W	21°30	Fe/-	5"-5"-

Spectr. Ter
Focus....
Spectr. Ter
Exp Mtr.

Spectr. Temp. .....53°..... Dome Temp./Hum. ..44°/92%.. Transparency Conditions ....clear.....

Focus .....502.....

Spectr. Temp. .....43°..... Dome Temp./Hum. ..36°../95%.

82

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.68	8s	IIaOe	A		53° 503	cvs/Ref
400/350	2-3	6.81	Am	"	"	"	"	A	Am	53° 502	Fine
400/350	3-4	7.89	Am	"	"	"	"	B	Am		Fine
							IIaOe				
400/350		7.96	A2V	"	"	"	"	A	Am	45° 503	Fine
400/175	2	5.88	Am	"	"	"	"	B	Am		sl str
							"				
400/175		5.99	Am	"	"	"	"	A	Am	new box of plates	Fine

83

Date ... Oct. 17-18 ... Observers ... CW.-Bta.-Box ...

8m 68° Emulsion Batches: ... IIaO-e ... 9.80.3.1-13101 23 1st

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp	Exp Mtr.
46307 ✓	δ^2 LYR HD175588	18h51m.0	+36°46'	18:48	19:46 D4	2h20m W	+36°55	Fe/—	5-5	4 ripples
07T	cal plate for	46307		15-min 130	(1) 3900	(2) 4300 D3	(3)			
07F	focus test							Fe/—	15-1	

Spectr. Ter
Focus ....
Spectr. Ter

Spectr. Temp. 50° Dome Temp./Hum. 45°/92% Transparency Conditions . MOSTLY CLOUDY

Focus 502

Spectr. Temp. 50° Dome Temp./Hum. 42°/96%

84

Comparison Type Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	400/400	2"-3"	7.6	M4 -M5 III	BC	830/.68	150/.3	IIaO-e	A	CW-MIRAS	clouded out EXPOSURE TIME = 58m	Fine
								"				
					"	"	"	"	"		50° 502	

85

8m 69°

Emulsion Batches: Tmax-E 05031-13101

Date Oct 19/20 Observers Wlk/Ki

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46308	HD 186688 SuCyg.	19h 40.8	+29° 01′	21 24 22 37	21 43 23 48	0h 07m W	+29° 10	Fe/-	510
46308T	spectral plate & plate 46308				15min @ 15 Volts		D4 3900 D3 4200	D2 4810	
46308F	focus test							Fe/-	1515

Spectr. Temp. ..... Dome Temp./Hum. 38°F/82% Transparency Conditions .....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
300/300		6.87-7.66	FO G1	B.C.	830/.680	B.S.	IIaO-E	A	Rm Cepl.	T=45°F F 504	S/wk
							IIaO-E				
				B.C.	830/.680	B.S	IIaO-E	A		T=93°F F 504	OK

86

4J

Tues/Wed

Date Oct 20/21 1981 Observers Burr-Gis-Tn

8h 69° Emulsion Batches: IIaO-E 05031 - 17101

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46309	HD 203064	21h 14.7m	+43° 31'	18:47	19:33	0h 10m E	+43° 53'	Fe/-	7-7
46309T	Spot Cal's for 46309-				15 min Q	15V	D4 3900 D3 4300	D3 4810	

Spectr. Temp. 52°F ..... Dome Temp./Hum. 52°F/72% Transparency Conditions Cloud .....

Focus ....500.....

Spectr. Temp. ..... Dome Temp./Hum. ...../.....

88

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
00/173	2"3"	4.98	08 II	BC	830/.68	BS	IIaO-E	A	Runaway *	Cloud	Fine
							IIaO-E				

69 Fe-Sc

Date Oct. 23-24/1981 Observers ... Cnw — Tm — GIS

8m 68° Emulsion Batches: IIaF 05031 17101

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46310	HD 186688 SU CYG	19h40.8m	+29°01′	18 51	20 25	2 32 W	+29°	Fe/–	5-5-5
46310T	Spot Calib for 46310	– 19		15m @ 15V		12V 3 4 10	D3 4:00	D2 4:10	
46311	R AQL	19h01.5m	+8°05′	20:33	21 35	4h22m W	+8°08′	Fe/–	5-5-5
46312	R CAS	23h53.3	+50 50	21:44	22 32	0 27 W	+51°12′	Fe/–	5-5-5
46313	57 PSC	0h41.3m	+14°56′	22:39	23:21	0h27 W	+15°22′	Fe/–	7-7
46314	O CET	2h14.3m	−3°26′	23:25	23:43	0h48m E	−3°04′	Fe/–	7-7
46315	95 RZ ARI	2h50.2m	+17°56′	23:47	0:18	0h44m E	+18°16′	Fe/–	7-7
46316	HD 3950	0h 37.6	+51° -8′	0:24	1:26	2h 37m W	+52° 14′	Fe/–	5-5-5
46317	HD 4142	0 38.9	+47 19	1:33	1:55	3h 04m W	+47 46	Fe/–	5-5-5
46318	HD 30650	4 44.4	+43 24	1:59	3:27	0h 30m W	+43 33	Fe/–	5-5-5
46319	HD 37737	5 35.7	+36 09	3:31	6:13	2h 25m W	+36 12	Fe/–	5-5-5
46319F	Focus Test					1h 14m E	−8 34	Fe/–	

Spectr. Temp. ..+42°F..... Dome Temp./Hum. +35°F/90%. Transparency Conditions .....Some Clouds/.....

Focus .....503..... 90

Spectr. Temp. ..... Dome Temp./Hum. +27°F/96%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
7-/400	5"	6.87 -7.66	FC G1	B.C.	830/0.68	BS	IIaO-E	A	Rho Oph	some Cloud	fine
				"			"				
300/320	4"	7.6	M5e -M8e	BC	830/.68	F01.3	IIaO-E	B	Ori M1AS	EXPOSURE TIME = 62m	weak
00/460	3"	7.0	M6e -M8e	"	"	"	"	A	"	loss of 10m due to problem with R.A. clamp	fine
40/40	3"	7.1	M4III	"	"	"	"	B	M-STANDARD	Set 54 T = 38°F	fine
40/40	3-4'	6.2	Ke-M1e	"	"	"	"	A	Ori-M1AS	Exposure = 18m	fine
40/40	2"-3'	6.8	M6III	"	"	"	"	B	M-STANDARD	Exposure = 31m	fine
00/350	3"-4"	7.05	K1II	BC	830/.68	BS	IIaO-E	A	Runaway *		fine
00/177		5.53	B5I	"	"	"	"	B	Runaway *		v sl sky
50/350	2-3"	7.47	B6II	"	"	"	"	A	Runaway *	T=36° F	fine
00/300	"	8.31	O9.5I(n)	"	"	"	"	B	Runaway *		fine
				"	"	"	"	A		T=33°F F=50%	

91 SAT Sun

Date Oct. 24-25, 1941 Observers JBL-Tu...Fox

8m 68° Emulsion Batches: IIa-O: E. 05031 - 23 21

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46320F	Focus Test			17 50		0°	+29 14	Fe/—	15-15
46320	HD 186688	19 40.8	+29 01	17 53	18 55	1 06 W	+29 14	Fe/—	5-5-5
46321	HD 205198	21h 28.6	+48° 12	18 59	20 50	1 15 W	+	Fe/—	5-5-5
46321T ✓	Spot Focus Test	46320-24			15 min @ 14V	D4 3900	D3 4300	D2 4800	
46322	HD 9138	01 24.9	+15 38	22:43	22 56	0 38E		Fe/—	7-7
46323	HD 18778	02h 56.2	+81° 5'	23:02	23:28	1:45E		Fe/—	5 5 5
46324	HD 21092	03h 19.1	+47° 53	23:32	01 06	0 23E	+48 04	Fe/—	5-5-5

Spectr. Temp. +40°F Dome Temp./Hum. +35°F / 68% Transparency Conditions Some Cloud

Focus 503

Spectr. Temp. +38°F Dome Temp./Hum. +32 / 90%

92

Comparison/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					BC	830/1.68	BS	IIaO	A			
	20/400	1"	6.8-7.6	F0-G1	"	"	BS	IIaO-E	B	Ceph-Rm		v sl str
	30/372	1.3"	8.27	Am	"	"	"	"	A	Am	cloud	fair
								"				
	45/40	1"	5.1	K4III	BC	830/1.68	BS	"	A	stivel		good ~~vis~~
	250/185	1"	6.1	A7	"	"	"	"	B	Am		v sl str.
	450/165	1-3"	8.68	Am	"	"	"	"	A	Am	some cloud	good
											Note* There will be a 14.5 plate #22? just at the start.	

93

Date 25/26 Oct 1981 Sun/Mon Observers B.In.-Tn

84 68 Emulsion Batches: IIa0-E 05031 - 23101

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46325	HD 188439	19h 50m.1	+47° 33'	18:05	19 06	1 13W	+47° 44'	Fe/-	5-5-5
46325T	Spot Calib	for 46325		15 min @ 15V		D4 3900	D3 4300	D2 4810	
46326	HD 188439	19 50.1	+47 33	19 07	19 30	01 32W	+47 44	Fe/-	5-5-5
46327	HD 219188	23h 08m.9	+4° 27'	21 09	22 31	01 18W	+4° 49'	Fe/-	5-5-5
46327F	Focus Test					"	"	Fe/-	15-15

Spectr. Temp. 46°F ..... Dome Temp./Hum. 42°F/86% Transparency Conditions ..... Some Cloud .....

Focus ..502.....

Spectr. Temp. ...44.5°F..... Dome Temp./Hum. 40°F/93%

94

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
200/175	3	6.18	Bo.IIIp	BC	830/.68	BS	IIa-0 E	A	Runaway *	cloud T=46°F Focus=502	v s l sky
							IIa-0 E				
200/63	2-3	6.18	Bo.IIIp	BC	830/.68	BS	IIa0E	B	Runaway *	T=46 Repeat Focus=502 more cloud	good
200/95	3	7.01	BO.SIII	BC	830/.68	BS	IId-0E	A	Runaway *	T=46°F Focus=502	sl weak
				"	"	BS	IIa0	B			

QS

Date 29-30 Oct 81 ... Thurs Fri Observers Pla - Tu - Wah .....

Emulsion Batches:

8m 60° ... IIaO-E ... 05031 ... 23
4m 68° ... IIaO-E ... 07119 ... 04101 35 29

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46328 ✓	HD201916	21 02.5	+40°17'	20:23	22:44 D4	3 49 W D3	+41° 05' D7	Fe/-	5-5-5
46328T	Spot Calib for	46328-29, 31, 32, 35.		15 min @	15V 3900	4300	4210		
46329	HD 7950	0 37.0	+51 48	22 50	01:30	2:05 W	+52 13	Fe/-	5-5-5
46330	HD 37328	5 04.4	-8 53	0:39	01:22	1:29 E	-08 47	Fe/-	15-10-15
46330T	Spot Calib for	46330, 33, 34.			15 min @ D4	17.5V 3900	15V 4300	15V 4410	
46331	HD21071	3 18.9	+48 45	01 32	02:37	1.29 W	+49 01	Fe/-	5-5-5
46332	HD 20902 & per	03H 17M.2	+49° 30'	02 41	02:43	1:37 W	+49 48	Fe/-	7-7
46333	HD 37328	5 04.4	-8 53	02 53	03:36	0.49 W	-8 48	Fe/-	20-20
46334	HD37763	05H 33M.7	-2° 39'	03:40	04:04	0043 W	-2° 33'	Fe/-	20-20
46335	ADS 4241 D	05H 33M.7	-2° 39'	04:05	05.21	02 01 W	-2° 33'	Fe/-	5-5-5
46335T	Focus test					"	"	Fe/-	" " "

Spectr. Temp. +46.8°F Dome Temp./Hum. 41°F / 92% Transparency Conditions Hazy - Cloudy 96

Focus 502

Spectr. Temp. +42°F Dome Temp./Hum. 37°F / 100% H Fog

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/350	3-4	7.27	B1 IV	BC	830/68	BS	IIa-0E	A	Runaway*	Cloud	Fine
							IIIa-0E				
40/350	3-4	7.05	B1 IV	BC	830/62	BS	IIa-0E	B	Runaway	T=45°F	Fine
40/160	4"	4.07	B3Ve	BC	830/68	BS	IIIa-J-E	A	Be Em		
							IIa-J-E				
00/250	3-4	6.0	B6 V	BC	830/68	BS	IIa-J-E	B	Shell-Em	T=43°F set 503	Str
40/35				"	"	"	"	A	std vel		str
0/200	4"	4.07	B3Ve	BC	830/68	"	IIIa-J-E	B	Be Em		
0/100		3.51	O9.5 V	BC	830/68	"	IIIa-JE	A	SB-Bm		fine
00/254		6.62	B2 V	BC	830/68	"	Ia-0E	B	SB-Bm		Fine
				BC	830/68	"	"	A		T=42°F Focus=503	vsl blue

97 Fri - Sat

Date .. Oct. 30-31/81 Observers .Cra-Tu-Zki-Gis

Then 8m 68s evacuated 2hrs

Emulsion Batches: IIa-O unevacuated 05231-30101 21 16s
IIa-O* same batch 22 183

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Min.
46336	HD 186791	$19^h44.^m5$	+10°22	18:21	18:27		+10°39'	Fe/—	9-9	4
46337	HD 177940 R AQL	$19^h01.^m6$	+8°05'	18:32	21:07	4^h21^mW D4 3900	+8°18' D3 4300	Fe/— D3 480	7-7	7
46337T	Spot Calib for 46336-37			15min	@ 15V					
46338	HD 224421 R CAS	$23^h53.^m3$	+50°50'	21:17	21:50	0^h13^mW	+51°22'	Fe/—	7-7-7	5
46339	HD 222603	$23^h37.^m3$	—16°00'	22 12	23:05	1^h27^mW	-15 26	Fe/—	5-5-5	4
46340	HD 14386 O CET	$2^h14.^m3$	-3°26'	23:12	23:24	0^h34^mE D4 1900	-3°04	Fe/—	7-7	4
46340T	Spot Calib for 46336-16			5min @ 15V						
46341	HD 224935 30 PSC	$23^h56.^m8$	-6°34'	23 29	23:43	2^h02^mW	-6°09'	Fe/—	7-7	4
46342	HD 1013 χ PEG	$0^h09.^m4$	+19°39'	23:50	00:05	2^h27^mW	+20°04'	Fe/—	7-7	2
46343	HD 3950	0 37.0	+51 48	0:12	1:00	2^h38^mW	+52 20	Fe/—	5-5-5	1
46344	HD 14220	2 12.8	+52 07	1:07	2:00	2^h02^mW	+52 33	Fe/—	5-5-5	1
46345	HD 36576	5 27.7	+18 28	2:04	2:22	0^h48^mE	+18 37	Fe/—	7-7	2
46346	HD 43112	6 09.5	+13 53	2:26	2:54	1^h00^mE	+13 57	Fe/—	7-7	2
46346F	Focus					1^h00^mE	+13° 57'	Fe/—	1-1	1

Spectr. Temp. +49°F ..... Dome Temp./Hum. +44°F/92% Transparency Conditions .... CLEAR - hazy ....

Focus ... 5.01 .....

Spectr. Temp. +46°F ..... Dome Temp./Hum. +40°F/100+%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/40	2"	4.1	K3III	BC	830/0.68	150/1.3	IIa-O	A	Std Velocity		
430/430	2"	8.8	M5e -M8e	"	"	"	"	B	CW - MIRAS	EXPOSURE = 155m	weak
							IIaO				
500/500	2"	6.9	M6e -M8e	"	"	"	IIaO-E*	A	"	EXPOSURE = 33m	fine, but trail uneven
400/400	2½3	7.4	K4III	"	"	"	"	B	K STANDARD	EXPOSURE = 53m	fine
50/50	"	5.8	M5e -M7e	"	"	"	"	A	CW - MIRAS	EXPOSURE = 12m	
							"	B			
50/50	"	6.0	M3III	"	"	"	"	A	M STANDARD	EXPOSURE = 14m	blank
/50	"	6.0	M2III	"	"	"	"	B	M STANDARD	T=+42 5th (150)	comp. lines doubled!
400/400	2"	7.05	B1III	"	"	BS	"	A	Runaway*	Lubbock/Ritter time-use	fine
404/404	2"	7.01	B2V	"	"	"	"	B	Runaway*		fine
200/200	1"	5.71	K0III	"	"	"	"	A	Runaway*		fine
200/200	1"	5.67	B1V	"	"	"	"	B	Runaway*		v sl strong
				"	"	BS	IIaO	A		T=46°F F=501	

99

Date Sun/Mon 1/2 Nov 81 Observers KK-Tn / Ly-Tm

Emulsion Batches: (poor) 62 3+
4"68° IIaJ-b - 27101 3+
8"68° IIaD-E 05081 - 30101 23 217

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
46347	HD157909	17 30.3	+12°38'	18:08	18:25	03:18 W	+12 40	Fe/—	20:20
46347T	Spot Calibration		① D4 Π½N 3900Å		② D4 15V 4300Å				
46348	HD 186791	19 41.5	+10° 22'	18:28	18:34	01 15W	+10 39	Fe/—	7-7
46348T	Focus Test					"	"	Fe/—	4-4
46349	HD32147	04 55.7	-05 52	02:39	3:40 D4	01 08W D3	-5 42 D2	Fe/—	5-5
46349T	Spot calc for	46349		15 min @ 15V	3900	4300	4810		

Spectr. Ten
Focus
Spectr. Ten

Exp. Mtr

Spectr. Temp. 54° Dome Temp./Hum. 52°/86% Transparency Conditions sl. haze 100

Focus 499

Spectr. Temp. ..... Dome Temp./Hum. 100%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
10/2m±	1"	2.2	A5 III	BC	830/.68	BS	IIIaJ+GG385	B	Asm Sp - KK	.	sl str.
											mottled fine v sl blue
40/50	1"	4.1	K3 II	"	"	"	IIaO-E	B	Sol Vel	R.H. side of box	
				"	"	"	IIIaJ+GG385	A		[The 2 IIIaJ's are together]	
00/156	3"	7.3	K3 V	BC	830/.68	BS	IIaO-E	A	Asm - KK	T=52°F Se+500	
							IIaO-E			95% cumulo[illegible] humidity falling clouds	

10 pg #1

Date Mon-Tues. 2/3 Nov. 81 Observers Ly-Tn / Bla-Tq

Emulsion Batches:
8"69 IIaO-E 05031 - 31101
4"68 III.a-J-Eb 09061 - 29101 46 3f

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46350F	Focus Test						+10 34	Fe/-	15-15
46350	HD186791	19 41.5	+10 22	17 40	17 45	00 30W	"	Fe/-	7-7
46351	HD219150	23 08.6	+1° 39'	17 54	20 00	00 40E	+02 06	Fe/-	5-5-5
46351T	Spot Calc for 46350	-56, 59, 61, 63.			15 min @ 15V	D4 3900	D3 4300	D2 4810	
46352	HD1337	00 12.4	+50 53	20 11	20 52	0 54E	+51 19	Fe/-	7-7-7
46353	"	"	"	20 53	21 34	00 12E	"	"	7-7-7
46354	HD10260	01 35.3	+60 32	21 39	23:00	00 07E	+60 56	"	7-7-7
46355	HD1337	00 12.4	+50 53	23 05	23:41	01 57W	+51 17	"	7-7-7
46356	HD 22484	03 31.8	+0 05	23 57	00:06	00 57E	+0 20	"	10-10
46356F	Focus Test					"	"	"	20-20
46357	HD 33328	05 4.4	-8 53	00 17	00 50	01 15E	-8 47	"	20-20
46358	HD27468	05 33.7	-2° 39'	00 54	01 14	1 52E	-2° 37'	Fe/-	20-20
46358T	Spot Calc for 46357-58, 60, 62				15 min @ D4		175V 2900	15V 4300	15V 4200
46359	AOS 4241 D	05 33.7	-2 39	01 16	02 34	00 32E	-2 37	Fe/-	5-5-5
46360	HD 33328	05 4.4	-8 53	02 39	03 05	00 29W	-8 47	Fe/-	20-20

Spectr. Temp. 155°F ..... Dome Temp./Hum. +50F / 78% .

Transparency Conditions . Some Cirrus .....

Focus ..... 500 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... / .....

Then very photometric
many Brt meteor seen early evening

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/1.68	BS	IIaO	A			v sl red
40/40	2"	4.1	K3II	"	"	"	IIaO-E	A	Std Vel.		fine
400/350	3+	7.5	F0	"	"	"	IIaO-E	B	Fe *		good
							IIaO-E				
00/250	2"-4"	6.05	O9III	BC	1200/.025	BS	IIaO-E	A	MSB-Ly	Set 499 T=54°F	fine
00/250	"	"	"	"	"	"	"	B	"		fine
00/225	2-4	5.6 *	B8	"	"	"	"	A	SpBi-Ly	* much fainter ≈	fine
00/225	"	6.05	O9III	"	"	"	"	B	MSB-Ly	Set 500 T=50°F.	fine
0/40	2"	4.4	F8V	"	"	"	"	A	std vel		good
				"	"	"	IIaO	A		T=49.5 Set=500	v sl blue
0/200		407	B3Vc	"	830/68	"	IIIaJ-E	B	Be Bin	Set=501	sl strong
0/200		3:1	O9.5I	"	830/.68	"	IIIaJ-E	A	SO-Bin		strong
							IIIaJ-E				
00/500	3"	6.62	B3V	BC	830/.68	BS	IIIaJ-E	B	SB Bin		sl strong
0/200	3"	4.07	B3Ve	"	"	"	IIIaJ-E	A	B= Bin		strong

103 pg #2

Date Nov. 3 - 2nd half Observers Bla-Tu

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46361	HL52533	06"56"5	-2°59'	3 09	5 03	0 35W	-3 06	Fo/-	~~55~~ 5
46362	HD 33328	05 44	-8 53	5 06	05 49	03 19W	-8 47	Fo/-	~~20~~ 20
46 363	HD43112	06 09.5	+13°53'	05 54	06 16	02 38W	+13 50	Fo/-	~~7~~ 7

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions Photometric 1/04

Focus .....

Spectr. Temp. 46° F ..... Dome Temp./Hum. 38°/80% All four bri Planets soon. Mercury-Jupiter, Saturn, Uranus - evening

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
00/350	2-3"	7.61	09 V	BC	830/68	BS	IIIa-O-E	B	Runaway/*	1" broken off bkgnd	fine
00/175	4"	4.07	B2 Ve	"	"	"	IIIa-J Eb	A	Be-B1n		sl strong
00/176	3"	5.67	B2 V	BC	830/68	BS	IIIa-O E	B	Runaway*	Focus = 501	v sl strong

165 TUES./WED.

Date Nov. 3/4 1981 Observers G.S.-Th

8m 68° Emulsion Batches: IIaO: E 05031 - 31 10/22 248
IIaO: E 05031 - 01111 24 238

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46364	HD 186791	19h 41m.5	+10° 22′	17:36	17:39	0h 28m W	+10° 31′	Fe/–	7-7
46365	HD 3950	0 37.0	+51 48	17:45	18:28	3h 37m E	+52 11	Fe/–	7-7-3
46365T	Spot calib for 46364 - 71.			15 min @15V		D4 3900	D3 4300	D2 4810	
46366	HD 195907	20 29.0	+31 19	18:32	20:15	2h 20m W	+31 34	Fe/–	5-5-5
46367	HD 220057	23 15.7	+60 37	20:23	20:56	0h 14m W	+60 51	Fe/–	5-5-5
46368	HD 16429	2 33.1	+60 51	21:01	22:45	1h 19m E	+61 08	Fe/–	5-5-5
46369	HD 11606	1 48.8	+58 47	22:50	23.28	0h 16m W	+59 07	Fe/–	5-5
46370	HD 37737	5 35.7	+36 09	23:35	1:52	1h 13m E	+36 09	Fe/–	5-5
46371	HD 37657	5 35.1	+43 00	2:03	2:49	0h 16m E	+43 00	Fe/–	5-5-5
46372	HD 39680	5 49.0	+13 49	2:52	4:44	1h 26m W	+13 48	Fe/–	5-5-5
46373	HD 30650	4 44.4	+43 24	4:47	6:16	4h 02m W	+43 32	Fe/–	5-5-5
46373T	Spot calib for 46372 - 73.				15 min @15V	D4 3900	D3 4300	D2 4810	
46373F	Focus test					4h 02m W	+43 32	Fe/–	30-2

Spectr. Temp. +51°F ..... Dome Temp./Hum. +46°F/60% Transparency Conditions Fine...s/haze.....

Focus .501.....

Spectr. Temp. +47.5°F..... Dome Temp./Hum. +44°F/85%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
0/50	1"	4.1	K3 I	BC	830/.68	BS	IaO-E	A	Std. Velocity		fine
00/175	2"	7.05	B1 I	"	"	"	"	B	Runaway *		fine
							"				
00/350	1"	7.85	B1.5 Ie	BC	830/.68	BS	IaO-E	A	Runaway *		fine
0/350	1"	6.94	B2 IV	"	"	"	"	B	Runaway *		fine
0/350	2"	8.29	09.5 III	"	"	"	"	A	Runaway *	T=50°F	
0/175	1"	7.06	[illegible]	"	"	"	"	B	Runaway *		fine
0/175	2"	8.31	0.5 Ia	"	"	"	"	A	Runaway *	T=48.5°F	fine
0/175	1'-2"	7.22	B3 Ve	"	"	"	"	B	Runaway *	T=47°F F=502	v sl. strong
0/175	1'-2"	8.01	0.5 Ve	"	"	"	IaO-E*	A	Runaway *		sl. strong
0/182	1"	7.47	B6 I	"	"	"	"	B	Runaway *	Th. cloud	sl. strong
							"				
				BC	830/.68	BS	098	A			

107 Wed/Thurs

Date Nov 4/5 1981 Observers Kw. Ri // Gus - Ri

gm 68

Emulsion Batches:
IIa-E 05031-
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46374F	Focus test						+26°	Fe/—	5-15
46379	HD 186791	19h 41.5	+10° 22	17:30	17:32	0 25 W	+10° 30	Fe/—	7-7
46375	HD 186688 = SVCyg	19h 40.8	+39° 01	17:36	18:06	1h 00 W	+39° 11	Fe/—	5-5-5
46375T	Spot Calib. for 46374	-84		15 min	@15v	D4 3900	D3 4300	D2 9810	
46376	HD 194927	19h 31.2	+31° 04	18:10	19:12	2h 16 W	+31° 12	Fe/—	5-5-5
46377	HD 180583	19h 12.0	+27° 45	14:15	14:48	3h 13 W	+27° 52	Fe/—	5-5-5
46378	HD 197572 = X Cyg	20h 39.5	+35° 14	19:52	21:41	3h 37 W	+35° 30	Fe/—	5-5-5
46379	HD 203156	21h 15.4	+37° 44	21:45	23:05	3h 25 W	+37° 59	Fe/—	5-5-5
46380	HA 303 E Aqr	22h 41.1	+36° 33	22:11	23:42	2h 35 E	+36° 29	Fe/—	5-5-5
46381	HD 20902 = 2 Per	03h 17.2	+49° 30	23:48	23:50	00h 53 E	+49° 44	Fe/—	7-7
46382	HD 3950	0 37.0	+51 48	23:58	0:40	2 37 W	+52 12	Fe/—	5-5-5
46383	HD 16429	2 33.1	+60 51	0:47	2:15	2 15 W	+61 10	Fe/—	5-5-5
46384	HD 39680	5 49.0	+13 49	2:20	4:10	0 57 W	+13 49	Fe/—	5-5-5

Spectr. Temp. 55°F Dome Temp./Hum. 53°F/66% Transparency Conditions .....

Focus 500

Spectr. Temp. 48°F Dome Temp./Hum. 42°F/100% 40/32

Comparison Type/Filter	Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
L						13C	530/.58	13s	IIaOE	A		focus test	
-		40/50		4.1	K3III	"	"	"	IIaOE	B	std vel		fine
		30/400	2	6.7-7.7	F0-G1	"	"	"	"	A	Ceph/Evan		sl strong
									IIaOE			T= 55°F (spectrum)	
		100/500	2	7.30	B2Ip	"	"	"	"	B	Blue He+		sl. strong
		300/400		6.7	F2-G2	"	"	"	"	A	Ceph/Evan		v sl strong
		30/600	2-3	6.6	F5Ib	"	"	"	"	B	Ceph/Evans		strong
		1/80		5.4	F2	"	"	"	"	A	Ceph/Evans	T=5-°F	sl str.
		30/400		7.2 F2	F2-G1	"	"	"	"	E	Ceph/Evans		fine
		20/20		2.27	F5Ib	"	"	"	"	A	Cep/Evans		strong
		100/175		7.05	B1II	"	"	"	"	A	Runaway *	T= 51°F F= 501	strong
		100/350		8.29	O9.5III	"	"	"	"	B	Runaway *	T= 50°F	sl str.
		100/314	3"	8.01	O6.5Inf	"	"	"	"	A	Runaway *	T= 49°F Cloud-Fog	fine

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Sat/Sun

Date Nov. 7/8 1981 Observers JBL - Ri

Emulsion Batches: 8hr 68 IIaO-E 05031-04111 22 215

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46385	HD 205085	21h 27.9	+47° 50'	17:36	19:09	0'30 W	+48°10	Fe/-	5-5-5
46385F	Focus test							Fe/-	15-15
46385T	SPOT CALC'N FOR	PLATES	46385-	46392	15 MIN @ 15 VOLTS		@ D4 3900	@ D3 4300 @ D1 4810	
46386	HD 16627	2h 39.8	+42°15'	19:24	22:21	01:27E	+42° 35'	Fe/-	5-5-5
46387	HD 16693	2h 35.5	+42° 22	22:28	01:03	01:16 W	+42° 42'	Fe/-	5-5-5
46388	HD 23631	3h 41.5	+23° 37'	01:11	02:17	01:25W	+23°51	Fe/-	5-5-5
46389	HD 23194	3h 38.1	+24° 15	02:23	04:29	03:40W	+23°31	Fe/-	5-5-5
46390	HD 23950	3 44.0	+21°57'	04:33	04:54	03:59W	+22°11	Fe/-	5-5-5
46391	HD 23763	3 42.6	+24°03'	04:58	05:58	05:05W	+24°18	Fe/-	5-5-5
46392	HD 66141	7h 57.1	+2° 36	06:03	06:11	01:04W	+02°23	Fe/-	5-5-5
46392F	Focus TEST							Fe/-	15-15

Spectr. Temp. 42°F Dome Temp./Hum. 40°F 65% Transparency Conditions excellent

Focus 504

Spectr. Temp. Dome Temp./Hum. 33F 100% 40/35

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
300/700		8.03	Am	B.C.	830/.680	B.S.	IIaO-E	B	Am		fine
				B.C.	830/.680	B.S.	IIaO-E	A		BROKEN T 42°F F 504	light struck
							IIaO-E				
300/350	3	8.55	Am	B.C.	830/.680	B.S.	IIaO-E	A	Am	? Mag wrong?	sl. weak
700/700		8.52	B85	B.C.	830/.68	B.S.	IIaO-E	B	Am	T 91°F F 504	fine
200/175		7.31	Am	B.C.	830/.68	B.S.	IIaO-E	A	Am	T 40°F F 504	v sl. str.
350/350		8.26	Am	B.C.	830/.68	B.S.	IIaO-E	B	Am	T 39°F F 505	fine
175/175	3	6.06	B9	B.C.	830/.680	B.S.	IIaO-E	A	Am		fine
200/175		7.06	A2V	B.C.	830/.680	B.S.	IIaO-E	B	Am		fine
40/50		5.5	K2III	B.C.	830/.680	B.S.	IIaO-E	A	Std. Vel		fine
							IIaO-E	B		T=38°F F 505	

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SUN.-MON.

Date NOV. 8-9 1981 Observers AK-RW-LY-RI

Emulsion Batches:

8m 68° IIaO-E 55231-09111 19 197

22 212

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
	h Pos. HD215182	22 38A	+29 42	20:00	21:08		+30 07		
				20:11	21:16				
46392T	comparison test							Fe Neg —	15
46392T	optical For NEW BATCH IIaO test				15min @ 15V volts		③ D3 9300		
46392F1	focus test							Ne/—	10-10
F2	"							Ne/—	10-10
F3	"							Fe/ND	10-10
F4								Ne/—	10-10
F5								Fe/ND	10-10
46393	HD1337	0 12.4	+50 53	01:48	02:43	05 20W ① D4 3900	+51 22 ② D3 4300	Fe/— ③ D2	8-8-8 9310
46393T	SPOT CALN' FOR PLATES	46393-			15MIN@15VOLTS				
46394	HD28226	4 22.1	+21 24	02:51	03:52	02 18 W	+21 34	Fe/—	8-8-
	focus test					02 18W	+21 34		20/20

Spectr. Temp. 51°F Dome Temp./Hum. 38°F 90% Transparency Conditions .. intermittent cloud 1/2 cloudy - gusty

Focus 502

Spectr. Temp. ..... Dome Temp./Hum. ..... to permanent cloud.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1 min 15 sec 5 sec 1 min	2 min	2.95								knife edge tests N	
3 min 5 sec		15 sec	1 min	2 sec	10 sec					" " E	
							IIaO 7098	A			
19 197							IIaO-E				
				BC / IT	1200/.475	12μ	IIaD				
				"	"	"	2415				Blank
				"	"	"	2415				"
				"	"	"	IIaD			after removing shim from	
				"	"	"	"			real side	
10"/380	5	6.1	Op II	BC	1200/.025	BS	IIaOe	A	MSB - Ly	50°F set 499 longest chair on the spectrograph for balance scattered clouds	good
10"/360	3.5	6.0	Am	BC	1200/.025	BS	IIaOe	B	Hyades - Ly	48°F set 502 cloudy	good
				"	"	"	"	A		46°F set 502	

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Mon/Tues

Date Nov 9/10 1981 Observers Ly. R. / Bln-Ri

8m 68°F Emulsion Batches:

Ha De 05031-07111

4m 70°F { Ha J-Eb 02061-05111 36 3+
098-02E 20081-31101 40 215

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46395 F1	focus					00 02W	+36	Fe/-	20/20
46395	HD191610	20 05.7	+36 33	17:25	17:42	00 32W	+36 46	Fe/-	7-7-7
46396	"	"	"	17:44	17:58	00 47W	"	"	7-7-7
46397	HD1337	00 12.4	+50 53	18:05	18:52	02h 26E	+51 17	Fe/-	7-7 2
46397T	SPOT CALN' FOR PLATES	46395-400, 403		15 MIN @	15 VOLTS		① D4 3900	② D3 4300	
46398	HD1337	00 12.4	+50 53	18:55	19:39	01 37 E		Fe/-	7-7-7
46399	HD191610	20 05.7	+36 33	19:44	19:56	02 47W	+36 47	Fe/-	7-7-7
46400	"	"	"	19:57	20:08	02 59W	"	"	7-7
46401	HD219150	23 08.6	+01° 39'	20:22	23:57	03h 45W	+02°06	Fe No/66	4-4-4
46402	HD33328	05h 09.9	-8° 53'	00 09	00:35	01h 32m E	-8° 54'	T/-	30-2
46402T	SPOT CALN' FOR PLATES	46402			15 MIN @ D4	①	17.5 U 3900	② 15 U 4300	
46403	HD28226	04h 22m.1	+21° 27'	00'43	01:09	00:34 E	+21° 25'	F/-	7-7-
46404	HD33328	05h 04m.4	-8° 53'	01:15	01:30	00h 38m E	-8° 54'	Fe/- Fe/-	6 13
46404T	SPOT CALN' FOR PLATE	46401			15 MIN @	① 15 D4 3600	② 15 U 4100	D3	③ D3 R 4500
46405	HD33328	05h 04m.4	-8° 53'	01:35	01:57	00:09 E	-8° 54'	Fe/-	30-2

Spectr. Ter
Focus....
Spectr. Ter

Exp. Mtr.

Spectr. Temp. 43°F ..... Dome Temp./Hum. 34°F 70% Transparency Conditions ... Good ..... 1/5...

Focus ..... 501 .....

Spectr. Temp. ..... Dome Temp./Hum. 40/32½

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	1200/-.005	BS	IIaO-e	A		43°F set 501	ref/VS/ b/4e
80/100	3	5.0	B3Vk	"	"	"	"	B	Be-Bln		fine
50/100	3-5	"	"	"	"	"	"	A	"	42°F	fine
200/250 ⊗ D2 4810	3-5	6.1	09III	"	"	"	"	B	MSB-Ly	"	fine
							IIaO-E				
200/250	3	6.1	09III	B.C.	1200/.025	BS.	IIaO-E	A	MSB-Ly	40°F set 502	fine
80/100	3.	5.0	B3Ve	"	"	"	"	B	Be-Bln.		fine
50/100		"	"	"	"	"	"	A	"		v str
100/550	3	7.5?	F0I	B.C.	830/.800	150-/.3	-	B	Bln-Fe	38°F Set 504	S/T
40/200 ⊗ 150 4810	2	4.07	B2IVe	B.C	830/.62	BS	IIIaJEb	A	Be-Bln	35°F Set 505	strong
							IIIaJEb				
200/250	1-2	5.9?	Am	BC	1200/-.025	BS.	IIa-OE	B	Hyades Bin	T=35°F Set 503	Fine
40/100	2	4.07	B2Vn	BC	1200/.7	RS	O18-O2E	A	Be-Bln	T=35°F Set 505.5	exposure good
							IIaO-E				
10/200		4.07	B2IVe	BC	830/.62	BS	IIIa-JE	B	Be-Bln	T=34°F Set 506	V str

115 Cont'd.

Date NOV. 10. 1981. Tues. Observers Bla - Ri

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
46406	HD 37463	05 33.7	-2° 39'	02:02	02:16	00 42 E	-2° 41'	Fe/-	.2
46407	ADS 4291 D	05 33.7	-2° 39'	02:19	03:16	00 38 W ①	-2°44	Fe/-	5-5
46407T	SPOT CALN' FOR PLATE	46404			15 MIN @		D3 15U ③ 4810	D1 7U Hα	
46408	HD 33328	05 04.4	-3° 53'	03:24	03:51	01 41 W	-8° 54'	Fe/-	20-
46409	HD 52533	06 58.5	-2° 59'	03:55	06:05	02 05 W	-03° 12	Fe/-	5-5
46410	HD 42995	06 25.6	+11° 19'	06:07	06 34	03 04W	+11° 08'	Fe/-	5-5
46410F	Focus Test					03 04W	+11° 08'	Fe/-	

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ..Near Photometric 1/6

Focus ..... 506 .....

Spectr. Temp. 32°F ..... Dome Temp./Hum. ..28°F/84%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
20/90				BC	830/.68	BS	IIIa-J EL	A	SB-Bln		v str
400/500 ③ D27J 5450		6.62	B2V	B.C	830/.68	BS	IIa-E	B	SB-Bln	Choked ABSORPTIC Looks [illegible] of 643	v sl str
					096-07E						
400/500	3	4.07	[illegible]	BC	830/.68	BS	IIIa-J EL	A	Be-Bln	T=34°F	strong
400/500		7.61	09V	BC.	830/.68	BS.	IIa-E	B	RUN AWAY	T=34°F	F+,E
200/200		6.04	B2V [illegible]	BC	830/.68	BS	IIa-0E	A	Primary *	T=33°F	v sl str
				BC	830/.68	BS	IIa-0E	B		T=32°F Set 506	OK

117 Wed / Thurs

Date Nov 11/12 1981 Observers Rut-Tu-Swt-Gus

8m 68° Emulsion Batches: IIaO-E 05031-09111 22 215
IIIE R414 3-034-06-03

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46411 ✓	HD 30232 = Alf Ep	04h 91.1	+36° 33	23:17	0:44	0h 56m E	+36° 46		5-5-5
46411 T	Spot Calib	for 46411-13			15 min @ 15V	D4 3900	D3 4300	D3 4810	
46412	HD 3950	0h 37.0	+51° 48'	0:49	2:19	4 46 W	+52° 18'	Fe/—	5-5-5
46413	HD 34078	5 09.7	+34 12	2:24	3:26	1 18 W	+34 21	Fe/—	5-5-5
~~———~~	HD 43112	6 09.5	+13 53	3:28			+13 56	Fe/—	5-
46413F	Focus Test					0h 00m	+13° 56'	Fe/—	15-15
						①	②		
46413T	Spot test (Cooled) Spectra gas	3 lines @ 65°C		7 1/2 V	D4 10 min 7630	D3 30 min 54164			

Spectr. Temp. +40°F Dome Temp./Hum. +34F / 82% Transparency Conditions Fine with scattered cloud.

Focus 5.03 Fine Aurora with Radio NW despite Full moon

Spectr. Temp. + Dome Temp./Hum. +26°F / 96% Blg sow Fireball at 3110 Hrs near Sirius

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
100/205	3-4"	7.0- 7.1	A0- G1	13C	530/.60	3S	IIaD E	B	Cook/Evans	v. sl streak	
							IIaD E				
200/175	3-4"	7.05	B1 III	BC	830/.62	BS	IIaO-E	A	Runaway ★		fine
200/180		6.18	09.5V	"	"	"	"	B	Runaway ★	T=35° Cloud F=505	fine
200/	5"	5.67	B1V	"	"	"	"	A	Runaway ★	Cloud - Cut off	
				BC	830/.62	BS	098	A		T=33°F F=505	sl blue
							HIE bfg				

119 Large Tour : 70 15 min on telescope

Thurs - Fri

Date Nov 12-13/81 ..... Observers Bln-Tm / Hk-Tn .....

Emulsion Batches:

A-68 : III-J-Eb 09061 - 09111

B-68 : II-O-E 09031 - 09111

A-68 098-02E 20081 - 31101 33 184

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46414F	Focus Test ✓								
[illegible]	HD 191610	20h 00m.7	+36° 33	17:20	17:54	00 56 W	+36°49'		15-12
46414T ✓	Spot Calb for	46414, 16, 18, 21.			15 min @ D4	17.5V 3900	15V 4300	15V 4210	
46415 ✓	HD 184927	19h 31.6 34m.7	+31° 04'	17:58	19:58	02 34 W	31° 12'	F-/-	5-5
46415T ✓	Spot Calb for	46415, 20, 22-29		15 min @ FV		D4 3900	D3 4300	D2 4210	
46416	HD 191610	20h 01m.9	+36° 33'	20:00	20:26	03 28 W	+36°41'	F-/-	13-12
46417	HD 191610	20h 00m.7	+36° 33'	20:59	20:58	01 00 W	+36°44	F-/-	13-12
46418	HD 200120	20h 56m.1	+47°03'	21:17	21:33	03 51 W	+47°23	F-/-	9 13
46419 ✓	HD 200120	20h 0m.1	+47° 03'	22:06	22:32	04 39 W	+47°23	F-/-	
46419T ✓	Spot Calb for	46417, 18		15 min @	15V D3 4210	7V D1 Hz	7V D2 5910		
46420	HD 142170	02h 12m.9	+52° 07'	22:40	23:33	00 26 W	+52 35'	F-/-	5-5-5
46421	HD 33328	05h 09m.4	-8° 53'	23:39	23:58	02 01 E	-8° 50'	F-/-	20-20
46422	HD 32147	04 [illegible]	-5 12	0 07	0:40	01 08 E	-5 51	F-/-	5-3-5
46423	HD 26965 B	04 10.7	-7 49	0 45	3:50	02 50 W		Fc/-	5-5-5
46424	HD 26965 A	04 10.7	-7 49	3:53	4:06	03 06 W		Fc/	5-5-5

Spectr. Temp. 21°F ..... Dome Temp./Hum. 35°F / 68% Transparency Conditions ..OK - some thin cirrus..... 128

Focus ..5.2.5.....

Spectr. Temp. ..... Dome Temp./Hum. ...../.....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/68	BS	098	A			OK
40/162	2-3	4.32	B3IIIa	BC	830/68	BS	IIIa-JEb	B	Be - Bln	Cloud	sl strong
							IIIa-JFb			(light struck?)	
100/500	2"	730	B2V	BC	830/63	BS	IIIa-0E	A	Bl - Mn K	Cloud	Fine
							IIa-0-E				
40/164		4.32	B3Ia	BC	830/68	BS	IIIa-JEb	B	Be - Bln	T=33F Set=505	str
40/100	2"	4.81	B3III	BC	1200/.7	BS	098-02E	A	Be - Bln	T=37°F Set=500	dirt? uncontam Fine exp
40/120	2"	4.51	B3Ia	BC	1200/.7	BS	098-02E	B	Be - Bln	same	same Fine exp
40/120	2"	4.51	B3Ia	BC	830/68	BS	IIIa-JEb	A	Be - Bln	Forgot to uncover grating T=36°F Set=505	v str
							C9E-2E				
100/175	1-2	7.01	B2V	BC	830/63	BS	IIa-0-E	B	Forward		dirt? Fine
40/160	2-3	4.07	B9IV	BC	830/63	BS	IIIa-JFb	A	Be - Bln		str
40/42	1-3	7.3	M2V	"	"	"	IIa-e	B	Asym Sp	T=35°F Set=505	fine
100/140	2"	9.6	DA	"	"	"	"	A	Asym Sp	11th mag companion visible on TV	sl. weak
40/40		5.	K0V	"	"	"	"	B	"	F-506 T=33°F	exp good spec. defns. dispersion trim along slit

12h. #2

Date Nov 12/13 cont. Observers .....

Emulsion Batches: HIE R4143-034-06-03

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46425	HD 18725	02 57.6	+53 07	04 17	04 21	≈4 30W		Fe/-	10/10
46426	HD 47105	06 31.9	+16 29	04 26	04 27	1 03W		Fe/-	10-10
46427	HD 66751	07 59.9	+70° 0'	04 36	05 18	≈0 30W		Fe/-	7-7
46428	HD 76151	08 49.4	-5 4	05 24	06 00	0 20W		Fe/-	7-7
46429	HD 103095	11 47.2	+38 26	06 04	06 37	2 02E		Fe/-	11-11
46429 T1	spot test (unbaked)					7½V	D4 ① 10 min 7620	D3 ② 30 min 2464	
46429 T2	spot test (baked forming gas 4 hrs @ 45°C)					"	"	"	

Spectr. Te
Focus....
Spectr. Te
Exp Mtr

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions .....

Focus .....

Spectr. Temp. ...33°F..... Dome Temp./Hum. ~~+28°F/.90%~~

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/71		3.6	G8 I · A3V	BC	1200 / f.025	BS	IIaO E	A	Asm Sp	Set 504	v sl. str.
40/51	2"	1.7	A0 VI	"	"	"	"	B	Asm Sp		dirt?? v sl. str.
40/64		7	dF8	"	"	"	"	A	Asm Sp		dirt? fine
40/65		5.31	dG3	"	"	"	"	B	Asm Sp		fine
40/50		7.20	G8 VI	"	"	"	"	A	Asm Sp		good
							HIE				
							HIEbfg				

123

FRI/SAT.

Date NOV. 13/14, 1981. Observers GIS: TH: ZK

Emulsion Batches:
IIaO-E 05031 - 12 1/21 190
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46430	HD 201910	21h 07.5	+40° 47'	17:31	18:55	1h 00m W	+41° 03'	Fe/—	5-5-5
46431	HD 214930	22 36.6	+23 19	19:09	20 05	0 38W	+23 45	Fe/—	5-5-5
46431T	Spec + Calib	for +46	30-43		15min @ 15V	D4 3900	1.3 4300	D2 4810	
46432	HD 219188	23 08.9	+4°27'	20:08	20:44	0h 47m W	+4 54	Fe/—	5-5-5
46433	HD 3950	00 37.0	+51 48	20:51	21:26	0h 00m W	+52 09	"	5-5-5
46434	HD 4142	00 38.9	+47 19	21:30	21:39	0h 10m W	+47 46	Fe/—	5-5-5
46435	HD 11606	01 48.8	+58 47	21:42	22:16	0 25E	+59 07	Fe/—	5-5-5
46436	HD 14220	02 12.8	+52 07	22:19	22:57	0 06E	+52 23	Fe/—	5-5-5
46437	HD 30650	04 44.4	+43 24	23:06	00:14	1 20E	+43 27	Fe/—	5-5-5
46438	HD 37657	05 35.1	+43 00	00:16	01:05	1 21E	+43 01	Fe/—	5-5-5
46439	HD 37737	05 35.7	+36 09	01:08	02 45	0 19W	+36 07	Fe/—	5-5-5
46440	HD 39680	05 49.0	+13 49	02:49	04:12	1 34W	+13 46	Fe/—	5-5-5
46441	HD 52533	06 56.5	-2 59	04:15	05:40	1 56W	-3 07	Fe/—	5-5-5
46442	HD 44172	06 15.3	+14 45	05:44	06:25	3 22W	+14 40	Fe/—	5-5-5
46443	HD 81797	09 22.7	-8 14	06:28	06:29	0 20W	-8 37	Fe/—	7-7
46443	Focus Test					0 20W	-8 37	Fe/—	17-1

Spectr. Temp. 42½°F Dome Temp./Hum. 43°F/62% Transparency Conditions hazy to mainly clear

Focus 50.3

Spectr. Temp. 43 Dome Temp./Hum. 40°F/82% was 96? Earlier Great night, Eh!?

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
200/182	1"	7.27	B5V	BC	830/.68	BS	IIaO-E	A	Runaway*	Note* there was a bright star allready in light box	Edges not sharp Fine
200/175	1"	7.39	B2III	"	"	"	"	B	Runaway *	T=44°F	Fine
							"				
40/35+	1"	7.01	B0.5III	BC	830/68	BS	IIaO-E	A	Runaway*		Fine
40/36	<1"	705	B1III	"	"	"	"	B	"		"
40/37	<1"	5.53	B5V	"	"	"	"	A	"	T=44°F	"
40/40	<1"	7.08	B2IVne	"	"	"	"	B	Runaway*	some cloud	"
200/175	<1"	7.01	B2V	"	"	"	"	A	Runaway *	" "	"
200/178	<1"	7.47	B6V	"	"	"	"	B	Runaway *	cloud	"
200/176	<1"	7.22	B3Vne	"	"	"	"	A	Runaway *	note All show this (dust) effort is for nought.	"
200/180	<1"	8.31	O9.5Vnn	"	"	"	"	B	Runaway *		v sluk Ju H Em
200/175	1"	8.01	O6.5Vne	"	"	"	"	A	Runaway *	T=43°F	Fine
200/175	<1"	7.61	O9II	"	"	"	"	B	Runaway *		Fine
40/40	<1"	7.29	B6V	"	"	"	"	A	Runaway *		Diff the Foc
40/42	<1	2.2	K3III	"	"	"	"	B	Std. Velocity		Fine
				"	"	"	"	A		T= F	v slbie

125

Sat./Sun.

Date Nov. 14/15, 1981 Observers ... Gus - Jn .....

8m68 Emulsion Batches: IIaO-E 05031 14111 20 206

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46444F	Focus Test					0h54mW	+10° 32'	Fe/-	17-17
46444	HD 186791	19h41m.5	+10° 22'	17:19	17:29	1h02mW	+10° 32'	Fe/-	7-7
46445	HD 195907	20 29.0	+31 19	17:31	19:20	2 06W	+31° 32'	Fe/-	5-5-5
46445T ✓	Spot Calc	for	46444-	52	15min	@15V	D4 3900	D3 4330	D2 4810
46446	HD 214930	22 36.6	+23 19	19:23	20:02	0 40W	+23° 42'	Fe/-	5-5-5
46447	HD 219188	23 08.9	+ 4 27	20:10	20:57	1 03W	+ 4 50	Fe/-	5-5-5
46448	HD 3950	00 37.0	+51 48	21:02	21:32	0 10W	+52 10	Fe/-	5-5-5
46449	HD 220057	23 15.7	+60 37	21:35	22:02	2 02W	+60 59	Fe/-	5-5-5
46450	HD 11606	01 48.8	+58 47	22:05	22:36	0 01W	+59 07	Fe/-	5-5-5
46451	HD 14220	02 12.8	+52 07	22:45	23:48	0 49W	+52 23	Fe/-	5-5-5
46452	HD 4142	00 38.9	+47 19	23:51	00:30	3 06W	+47 14	Fe/-	5-5-5

Spectr. Temp. +49°F Dome Temp./Hum. +48°F/60% Transparency Conditions cirrus...hazy 126

Focus 5.01

Spectr. Temp. 48°F Dome Temp./Hum. /

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC.	830/.68	BS	IIaO-E	A		T=49°F F=501	
40/40	1"	4.1	K3II	"	"	"	"	B	Std. Velocity		fine
200/175	1-2"	7.85	B1.5Ve	"	"	"	"	A	Runaway *	some cloud	Fine
							"				
80/75	<1"	7.39	B2IV	BC	830/.68	BS	IIaO-E	B	Runaway *		Fine
200/175	1-2"	7.01	B0.5III	"	"	"	"	A	Runaway *	T=50°F	Fine
40/40	<1"	7.05	B1III	"	"	"	"	B	Runaway *		Fine
40/37	"	6.94	B2IV	"	"	"	"	A	Runaway *		Fine
40/36	"	7.08	B2Ivne	"	"	"	"	B	Runaway *		Fine
80/60	2"	7.01	B2V	"	"	"	"	A	Runaway *	cloud cut short	Fine
40/39	2"	5.53	B5V	"	"	"	"	B	Runaway *		Fine

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Tour looked at m 76

Wed/Thurs

Date ..Nov.18-19....1981.. Observers ..Rm-Tm../..Gies...Tm.

Emulsion Batches:
IIa-O-E ..05031.. - 14111 18 196
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46453	HD 23168=HR 1157	21h 16.4	+27° 49	21:09	22 24	4 40 W	+38° 05	Fe/—	7-7
46454	HD 17463=SJ Cas	2h 43.0	+68° 28	22:36	23:59	0 44 W	+61° 15	Fe/—	5-5-5
46454 ✓	Spot Calc	for 46453-56			15m. @ 15V	D4 3900	D3 4300	D3 4810	
46455	HD 14220	2h 12.8m	+52° 07	00:03	01:00	2 17W	+52° 26	Fe/—	5-5-5
46456	HD 30650	4 44.4	+43 24	01:03	01;48	0 34W	+43° 30'	Fe/—	5-5
46456F	Focus Test					0 34W	−5 30	Fe/—	17·17

Spectr. Temp. +47°F ..... Dome Temp./Hum. +40F / 92% Transparency Conditions . Some Cloud .....

Focus .... 501 .....

Spectr. Temp. +43°F ..... Dome Temp./Hum. +37°F / 100% .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
200/ 302	3"	5.87	F_2	BC	G12/.68	BS	IIaOE	A	Ceph/Eclaw		Fine
20/ 402	3"	6.4-7.0	F5Ib-F7Ib	3C	G12/.68	BS	IIaOE	B	Ceph/Eclaw		Fine
							IIaOE				
0/36	2-3"	7.01	B2V	"	"	"	"	A	Runaway *		Fin..
+0/15	2"	7.47	B6III	"	"	"	"	B	Runaway *	T=43°F cloud F=503	Fo wk Sl.k
				"	"	"	?	B		T=43°F F=503	OK

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Tues./Wed.

Date 24-25 Nov. 1981 Observers Bch - Gis - Tn

Emulsion Batches: 8mm @ 69 II a.O-E 05031 - 18111 20223

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46457F	Focus Test					0h 05m W	+4° 36'	Fe/—	15-15
46457	HD 204867	21h 26m.3	-6° 01'	17:22	17:28	0h 05m W	-5 42	Fe/-	7-7
46458	HD 192281	20 09.0	+39 58	17:32	20 47	4 34W	+40 10	Fe/-	55-5
46459 ✓	Spot calib for 46457-65			15 mn @ 15V		D4 3946.0	D3 Lor	D2 4200	
46460	HD 3150	00 37.0	+51 48	20 : 51	21:47	1h 04m W	+52 11	Fe/—	5-5
46460	HD 4142	00 38.9	+47 19	21:50	22:11	1 26 W	+47 42	Fe/—	5-5
46461	HD 11606	01 48.8	+58 47	22:15	23:11	1 15 W	+59 07	Fe/—	5-5
46462	HD 16429	02 33.1	+60 51	23:14	02:27	3 47W	+61 08	Fe/—	5-5
46463	HD 39680	05 49.0	+13 49	02:37	05:11	3 18W	+13 45	Fe/—	5-5-5
46464	HD 37657	05 35.1	+43 00	05:15	06:18	4 38W	+43 00	Fe/—	5-5
46465	HD 45995	06 25.6	+11 19	06:21	06:55	4 26W	+11 15	Fe/—	7-7

Spectr. Temp. 36.5F Dome Temp./Hum. 29°F / 76% Transparency Conditions ... Some Haze ... 130
Focus 505
Spectr. Temp. 27°F Dome Temp./Hum. +19°F / 99%
But Fine.
Faint Aurora for short time

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/62	BS	IIaO	A		T=36.5F F=505	Comparison
40/41	3"	3.7	G0Ib	"	"	"	IIaO-E	A	Std. Velocity		Exp
00/175	4"	7.93	O5f	"	"	"	"	B	Runaway *		Exp
							IIaO-E				
30/75	3-4"	7.05	B1II	BC	830/62	BS	IIaO-E	A	Runaway *		Exp
40/35	3-4	6.53	B5V	"	"	"	"	B	Runaway *	T=31°F F=506	"
40/35	?"	7.08	B-IIIne	"	"	"	"	A	Runaway *		"
00/175	3"	8.29	O9.5II	"	"	"	"	B	Runaway *	T=30°F F=507	Weak
00/175	3-4"	8.01	O:5Vne	"	"	"	"	A	Runaway *	T=27°F	Exp
40/35	?"	7.22	B5Ine	"	"	"	"	B	Runaway *	T=27°F	Exp
0/35	4"	6.04	B5Vnne	"	"	"	"	A	"		Exp

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Date Nov 25-26 1961 Observers R.M. R.I.

Emulsion Batches:
8mm I-100-F 05031-1311 ... 21 196
2.65"F I-100-F 05031-2411 ... 20 196

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46466F	Focus Test							Fe/—	15-3
46466	HD 195295 = 91 Cyg	20h 25.3	+30° 2'	17:13	17:25	1h 00	+30° 16	Fe/—	7-7
46467	HD 204367 = 73 Aq	21h 26.9	-6° 1'	17:30	17:38	0h 16 W	-5° 40	Fe/—	7-7
46468	HD 204367 = 73 Aq	"	"	17:39	17:49	0h 22 W	"	Fe/—	7-7
46469	Spot Check f = 4646		-4°07'	15 min @ 15V		D9 3900	D3 4300	D2 4:10	
46469	HD 204150 = ψ Aqr	22h 0.6	-0° 48	17:52	17:59	0 02 E	-0° 26	Fe/—	7-7
46470	HD 209750 = ζ Aqr.	22 0.6	-0° 48	18:00	18:14	0 12 W	"	Fe/—	7-7
46471	HD 196 = 95 Cyg	19h 50.8	+39° 01	18:18	20:32	04h 52 W	+39° 16	Fe/—	5-5
46472	HD 203156 = 17 Del	21h 15.9	+37° 49	20:38	21:36	04h 21 W	+38° 05	Fe/—	5-5
46472	Spot Check	f = 4647	2 —	15 min @ 15V		D4 3900	D2 4300	D2 4:10	
46473	HD 17463 = SUCet	02h 43.0	+68° 38	21:42	23:17	00h 30 W	+65° 44	Fe/—	5-5

Spectr. Temp. 34°F ..... Dome Temp./Hum. 36°F / 66% Transparency Conditions ..... 132.

Focus ..506.....

Spectr. Temp. 33°F ..... Dome Temp./Hum. 26°F / 95% 10/31

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				13C	830/.62	BS	IIaOE	A			Cont Yvs/Blue
2/80	3-4'	9m	F5II	"	"	"	"	B	Cepk/Evans	SI	Str
10/45		3.7	G2Ib	"	"	"	"	A	Cepk/Evans		Fine
40/65		3.7	G2Ib	"	"	"	"	B	Cepk/Evans	hazy on S	Fine
							IIaOE				
45/65		3.9	G2Ib	"	"	"	"	A	Cepk/Evans		Fine
40/90		3.9	G2Ib	B.C.	830/.68	B.S	IIaO-E	B	Cepk/Evans	SI	Str
200/200		6m 7.7	F5 G2	"	"		"	A	Cepk/Evans	34° F start.	Fe wk Str wk Ca K
200/200		5.9	F2	"	"	"	"	B	Cepk/Evans		Ca K Fine
							IIaO-E*				
400/535		6.5	F2	"	"	"	" *	A	Cepk/Evans	Cloud	Fe wk Fine

133

Date .. Nov. 29-30/21. Observers ..... Cow — Ric .....

8m 60F Emulsion Batches: IIa-E .0503 1-29111 .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46474F								Fe/—	17-7
46474	AN CYG * ? HD 207017	$20^h 14.^m 7$	+34°05′	17:32	18:34	$2^h 39^m$ W	+34°05′	Fe/	7-14
46475	T CEP HD 02 4490	$21^h 08.^m 2$	+68°05′	18:42	19:13	$2^h 22^m$ W	+68°20′	Fe/	7-7
46476	R CAS	$23^h 53^m 3$	+50°50′	19:30	20:02	$0^h 24^m$ W	+51°17′	Fe/	7-7
46476T ✓	SPOT CHLN' FOR PLATES 46474 - 46478				15 MIN @ 15 VOLTS			③ D4 3900 ② D3 4300 ① D2 4810	
46477	O CET	$2^h 14.^m 3$	−3°26′	20:10	20:45	$1^h 15^m$ E	−03°04	Fe/	7-7
46478	U CET	$2^h 28.^m 9$	−13°35′	20:48	22:48	$0^h 35^m$ W	−13°14′	Fe/	7-7
46479F	FOCUS TEST			01:30				Fe/—	17-7

Spectr. Temp. 37°F Dome Temp./Hum. 32°F 71% Transparency Conditions CLEAR — CLOUDY

Focus 505

Spectr. Temp. ..... Dome Temp./Hum. 40/34 80%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C.	830/.68	150/1.0	IIaO E	A			
500/100	3"	9.9	M6e M7e	"	"	150/.3	IIaO-E	B		* Prob HOF 222843 K2 11.9 Exp = 60m (CUT EARLY)	weak not MG?
400/400		6.9	M5e -M7e	"	"	"	IIaO-E	A		Exp = 31m	
400/400		6.9	M6e -M8e	"	"	"	IIaO-E	B		Exp = 32m	
							IIaO-E				
400/400	3	7.0	M5e -M7e	B.C.	830/.680	150/.3	IIaO-E	A		Exp = 35m T=36° F=506	
400/188		9.0	M2e -M4e	B.C.	830/.680	150/.3	IIaO-E	B		cloudy CLOUD INTERRUPT	
						150/1.0	"	A		33°F 506	center blue

Dev. note: Change in location of N_2 cylinder with longer line has dropped gas burst intensity with resulting decreased agitation. Will temporarily go to 12 PSI from 8 PSI until new Tests can be done.

135.

Date MON-TUES NOV 30 DEC. 1 Observers Lx-Ri-Gi

8"68

Emulsion Batches:
Dao-E 05031-29111
.....
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46479	HD1337	00 12.4	+50 53	17:50	18:05	1h39E	+51°15	Fe/-	7-7-7
46480	"	"	"	18:17	18:41	1 15E	"	Fe/-	7-7-7
46481	HD217312	22 54.8	+62 32	19:49	20:18	1 37W	+62°55	Fe/-	7-7-7
46481T ✓	SPOT CALN' FOR PLATES 46479-				15 MIN @ 150 VOLTS	① D4 3900	② D3 4300	③ D2 4810	
46482	HD1337	00 12.4	+50 53	20:23	20:48	0 48W	+51 17	Fe/-	7-7-7
46483	"	"	"	20:49	21:12	01 14W	"	"	7-7-7
46484	HD28226	4 22.1	+21 24	21:18	21:50	02 18E	+21° 34	"	7-7-7
46485	HD28911	4 28.2	+13 ~~+3~~ D2	21:53	22:56	01 17E	+13°10'	"	7-7-7
46486	HD1337	0 12.4	+50 53	23:01	23:46	03 47E	+51°17	"	7-7-7
46486F	focus					"	"		20/20
46487	HD29866	4h 37.3	+40° 36'	00:03	00:25	0h05m W	+40° 04'	Fe/-	5-5-5
46488	HD34078	5 09.7	+34 12	00:29	00:47	0h05m E	34 15'	Fe/-	5-5-5
46489	HD37657	5 35.1	+43 00	00:50	01:36	0h19m W	+43 01	Fe/-	5-5-5
46490	HD30650	4 44.4	+43 24	01:40	03.30	3h02m W	+43 31	Fe/-	5-5-5
46490F	Focus test					3h05m W	+43 31	Fe/-	10-F

Spectr. Temp. 38°F Dome Temp./Hum. 34°F 66% Transparency Conditions 136

Focus 503

Spectr. Temp. 34°F Dome Temp./Hum. 30°F/89%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/505	2-3	6.1	O9III	B.C.	1200/-.025	BS	IIaO-E	A	MSB - Ly		Fine
400/250		"	"	"	"	"	"	B	"		
400/500	2-3	7.7	B0III+B0IV	"	"	"	"	A	MSB - Ly		
							IIaO-E				
400/250	2	6.1	O9III	B.C.	1200/-.025	BS	IIaO-E	B	MSB-Ly	37½°F	Fine
400/250	"	"	"	"	"	"	"	A			Fine
400/250	"	6.0	Am	"	"	"	"	B	Hyades - Ly	37°F	Fine
400/405		7.0	FSV	"	"	"	"	A	"		S/wk
400/250	"	6.1	O9III	"	"	"	"	B	MSB-Ly	Cirrus	wk
				"	"	"	"	A		36°F 503	cont S/Blue
400/175	2-3	5.87	B5II	"	830/.68	BS	IIaO-E	B	Runaway *	35°F 506	Fine
400/175		6.18	O9.5V	"	"	"	"	A	Runaway *		Fine
400/350		7.22	B1Ia	"	"	"	"	B	Runaway *	35°F	v/wk Fine
400/322		7.47	B2V	"	"	"	"	A	Runaway *	Cloud.	v/wk Fine
				"	"	"	"	B		34°F	cont S/ blue

137

Date 3/4 DEC 1981 TMN/TT Observers TT

Emulsion Batches:

F 68° IIa-O-E 05031 - 79111

4 68° IIa-J-E 07119 - 16111

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46491	HD4142	00h 38m.9	+17° 19′	19:26	19:47	00 17 E	+17° 44′	Fe/-	7-7
46492	HD14220	02h 12m.8	+52° 07′	19:56	21:43	00 00	+52° 29′	Fe/-	6-6
46492T	Spot Calib for	46491-92,95,97,98			15 min @ 15V	V6 3900	D3 4800	D2 4800	
46493	HD33328	05h 04m.1	-8° 53′	21 51	22:30	02 03 E	-3° 48′	Fe/-	20-20
46494	HD37468	05h 33m.7	-2° 36′	22:36	23 02	02 00E	-2 38	Fe/-	20-20
46495	ADS 4291D	05h 33m.7	-2° 36′	23 05	01 31	00 29W		Fe/-	6-6-6
46497T	Spot Calib for	46493-94,96			15 min @ D4	17.5V 3900	15V 4800	15V 4800	
46496	HD33328	05 04.4	-8 53	01 35	02 23	01 51 W		Fe/-	20-20
46497	HD48021 1/2	10h 03m.8	+20° 49′	02 28	04 49	00 44 E	+20 23	Fe/-	6-6
46498	HD97971	11h 11m.1	-2° 55′	04 53	07 05	00 25 W	-3° 29′	Fe/-	6-6-6
46498T	Focus Tc	←					←	Fe/-	20-20

Spectr. Temp. 71°F ..... Dome Temp./Hum. 35°F / 89% ..... Transparency Conditions . Sl. Hazy ..... some clouds

Focus ... 5.24 - 505 .....

Spectr. Temp. ..... Dome Temp./Hum. 27°F / 98% .....

* An extra plate in Box 5 should have OK I Ferric. If it's in there, then there are darker conditions

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
20/35	3"	5.3	I-II	BC	830/65	BS	IIa-O E	A	Runaways	* broken 1" away	Fine
20/175	2-3'	7.01	II-III	BC	830/.68	BS	IIa-O E	A	Runaways		Fine
							IIa-O E				
10/20	4-5	4.07	III-IIIa	BC	830/.68	BS	IIIa-J E	B	Be-Blu	T= 39°F	S/str
10/120	3"	3.51	II-II	BC	830/.68	BS	IIIa-J E	A	Be-Blu		S/str
200/250	3"	6.6	III-IV	BC	830/.68	BS	IIIa-J E	B	VB-Blu	T= 37.5°F cloud	S/str
							IIIa-J E			* fogged? Light struck?	
10/120	3"	4.07	III-IIIa	BC	830/68	BS	IIIa-J E	A	Be-Blu	T= 37°F cloud	Fine
300/300	3"	7.20	III-IV	"	"	BS	IIIa-O-E	B	VB Blu		Fine
200/156	3-4'	7.18	III-II	BC	830/.68	BS	IIIa-J E	A	Runaways	T= 35° cloud F=505	Fine
				BC	830/.68	BS	IIIa-O	B		Sol=05 T= 21°F	cent Blue
										* box 5 checked for light leaks —	
										none apparent	

139

Fri/Sat

Date Dec. 4/5, 1981 Observers RK-Tm

8m68° Emulsion Batches: II-O-E 05031 - 30111

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46499	HD 194093	20 18.6	+39 56	15 32	16 34	2 53 W	+40 10	Fe/—	5-
46500	HD 211073	22 09.6	+48 13	16 40	19 04	1 26 W	17 [illegible]	"	4-
46501	HD 11831	1 43.3	+47 24	19 09	20 36	0 35 E	+47 45		4-
46501 ✓	Spec Cal	Sc 44979 - 503			15m2 @ 15V	D4 3400	D3 4500	L0 4200	
46502	HD 33070	5 42.4	+20 50	23 56	0 36	0 34 E	+20 48	Fe/—	4-
46503	HD 40893	5 56.6	+51 3[illegible]	0 40	1 04	0 35 E	+51 30		4-2

Spectr. Ten
Focus...
Spectr. Ten

Exp Mtr

Spectr. Temp. 137°F..... Dome Temp./Hum. 32°F/.908 Transparency Conditions ...Semi Cloudy, Fires.....

Focus ...5.05.....

Spectr. Temp. 137..... Dome Temp./Hum. 130°/.962

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/20	2"	20	F8	BC	830/68	B5	IIaO E	1	Water in Proj		Sl str
50/52	2"	55	K3	"	"	"	"	B	"		Fine
60/65	2"	60	A2	"	"	"	"	H	"	cloud	Fo sl wk Fine
							"				
40/45	3-4"	50	Bq	BC	830/68	B5	"	A	Water Proj		Fine
200/20		64	A5	"	"	"	"	B	"	Cassi angles - Fe with visible weak	wk
									Proj - Record KK	OK A Though	

141

SAT - SUN

$8^m 68^s$ Emulsion Batches: IIaO-E 05031 - 04121

Date Dec. 5-6 1981 Observers J.B.L.-T.n

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46504	HD 27628	4^h 16.4	+13° 50	23:34	00:22	00:43W	[illegible] 57	Fe/-	8-8
46504T ✓	Spot Calc for 46504-	10		15min @ 15v		D4 5900	D3 4300	D2 4810	
46505	HD 27749	4^h 17.7	+16° 33'	00:27	01:32	01:52W	+	Fe/-	8-8
46506	HD 28546	4^h $25^m.0$	+15° 28'	01:37	02:07	02:21W	+	Fe/-	8-8
46507	HD 27934	4 19.4	+22 04	02 10	02:24	02:42W	+22 11	"	8-8
46508	HD 28024	4^h 20.3	+22° 35	02:28	02:41	03:00W		"	8-8
46509	HD 73731	8^h 34.7	+19° 54'	02:47	03:53	00:03E	+19° 32	Fe/-	8 8
46510	HD 73618	8^h 34.2	+19° 55'	03:57	06:10	02:15W	+19° 33'	Fe/-	6-6-6

Spectr. Temp. +32°F Dome Temp./Hum. +27°F/H=92% Transparency Conditions Hazy – cloudy 142

Focus 506

Spectr. Temp. +27 Dome Temp./Hum. +20°/97%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
200/178	3"	6.04	Am	BC	830/168	BS	IIaF	A	Am		Fine
							"				
200/265	3"	5.94	Am	BC	830/168	BS	"	B	Am	cloud	Fine
200/180		5.74	Am	"	"	"	"	A	Am		Fine
40/35		4.30	ATV	"	"	"	"	B	Am		Fine
40/36		4.56	A8V	"	"	"	"	A	Am		Fine
200/174	4"	6.97	Am	"	"	"	"	B	Am		Fine
200/ 0	5"	7.51	Am	"	"	"	"	A	Am	cloud	sl wk

143 SUN-MON

Date ... Dec. - 6-7/8.1 Observers ... Cnw - Tm ... 8m 68

Emulsion Batches: IIa0-E ... 05031 - 04121 ... ...

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46511	HD 202012 T CEP	$21^h08^m.2$	+68°05′	17:18	17:42	1^h20^m W	+68°20′	Fe/–	8–8
46512	HD 224490 R CAS	$23^h53^m.3$	+50°50′	17:47	18 13	1 00 E	+51°13′	Fe/–	6-6-6
46512F	Focus for 46511	–			15 min @ 15V	04 3900	03 4300	D2 4810	
46513	HD 224960 W CET	$23^h57^m.0$	−15°14′	18:21	19:51	0^h43^m W	−14°48′	Fe/–	6-6-6
46513F	Focus HD 69243					〃	〃	Fe/–	16-16
46514	R CNC	$8^h11^m.0$	+12°02′	3:16	4:03	0^h35^m W	11°44′	Fe/	8–8

Spectr. Temp. ....32°F..... Dome Temp./Hum. ..27°F/H=88%.. Transparency Conditions .....CLEAR - hazy....

Focus .....506.....

Spectr. Temp. ...30.5°F..... Dome Temp./Hum. 24°/ 99%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/40	2"	6.6	M5e -M9e	BC	830/.68	150/.3	IIaO-E	A	Crw-MIRAS	EXP = 24m	Fine
40/45	1"-2"	6.7	M6e -M8e	"	"	"	"	B	"	EXP = 26m	Fine
							"				
00/44	2-3	?	Mpe	"	830/.68	"	"	A	"	cloud + haze	wk but Em ok
				"	830/.68	150/10	IIaO	B			cal/vis/blue
40/40	2"	7.4	M6e -M8e	"	"	"	IIaO-E		Crw-MIRAS	EXP = 47m CLEAR	Fine

145 Tues./Wed.

Date Dec. 8/9, 1981 Observers Gus-Tn

ε^{m} 69° Emulsion Batches: IIaO-E 05031-04121

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46515	HD 34078	05h 09.7m	+34° 12'	01:16	02:26	2h 06m W	+34° 14'	Fe/-	8-10
46515T ✓	Spot Cals for 46515-	16			15min @ 15V	D4 3900	D3 4300	D2 4810	
46516	HD 29866	04 37.3	+40 36	02:30	03:05	4h 17m W	+40 44	Fe/-	9-9

Spectr. Temp. 31°F ..... Dome Temp./Hum. 21°F / 90% Transparency Conditions 1/16

Focus ... 506 .....

Spectr. Temp. ..... Dome Temp./Hum. +18°F / 90 .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
300/157	6"	6.18	09.5V	BC	830/.68	BS	IIaO-E	A	Runaway *	T=31°F F=506	Fe Flare? OK
							IaO-E				
200/17	6"	587	B5Fn	BC	830/.68	BS	"	B	Runaway*	Cloud shadow just ↖	Wk Ca K OK OK though

147

Date 11/12 DCC '31 F:/Cal Observers B.H.-T.H.

Emulsion Batches:
4" 68° III a-J-E 09061 - 03121
8" 68° II a-O-E Tabular - 06121

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46517	HD53323	05h 54m 1	−3° 53′	22:37	23 00	D: 02 E	−3° 42′	Fe/−	.5 .5
46517T	Spot Calc for 46517, 18, 20, 22, 23.			15 min	@ 04 17.5V 3400	15V 4300	15V 4810		
46518	HD 37017	05 30.4	−4 34	23 04	00 41	00 13 W D4	−4 32 L3	Fe/− D2	6 6 6
46518T ✓	Spot Calc for	46518, 21, 24.			15 min @ 15V	3900	4300	4810	
46519	HD37468	05h 33m 7	−2° 39′	00:44	00:57	00 22 W	−2° 40′	Fe/−	.5 .5
46520	HD33328	05h 24m 4	−8° 53′	01:00	01:26	01:23 W	−9° 49′	−/−	.5 .5
46521	HD37017	05h 30.4	−4 31′	01 29	03:23	02:55 W	−4 32	Fe/−	6 6 6
46522	H37043	05h 30m 5	−5° 57′	03 32	03 41	03 14 W	−5° 57′	Fe/−	.5 .5
46523	HD56484	05h 26m 9	−0° 22′	03:43	03 48	03 33 W		Fe/−	20 7
46524	HD93991	11h 11m 1	−2° 55′	03:58	05 58	00 11 E	−2° 56′	Fe/−	.5 .5
46525	Focus Test						−1° 16′	Fe/−	1 1

Spectr. Te
Focus .!..
Spectr. Te

Exp. Mtr

Spectr. Temp. 23.5°F ..... Dome Temp./Hum. 23°F/7%% Transparency Conditions Fine - sl. hazy 148

Focus F=507

Spectr. Temp. 23.5°F ..... Dome Temp./Hum. 18°F/102%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
30/20	3	4.52	[illegible]	BC	830/68	B5	IIIa J E6	A	Be - B1m		Fe st wk Str
							IIIa J Eb			* fogged? Light struck?	
60/20	3-5	6.42	B2Ip	LC	830/68	C5	IIaO-E	B	He - 1h		Fine
							IaO-E				
4-/121		3.51	B1I	BC	830/68	B5	IIIa J E6	A	SB - B1m	T = 29°F	Fe strk Sl str
4-/121		4.07	B2II	BC	830/68	B5	IIIa J E6	B	Be - B1m		Fe s/wk Fine
200/150	4	6.42	B1Ia	BC	830/68	B5	IIaO-E	A	He - F1h *		Fine
20/-5		2.47	O III	B1	830/68	B5	IIIa J E6	B	F1m - 1h	T = 25°F F = 509	Fe st wk Str
30/50		1.99	O5 I	BC	830/68	B5	IIIa J E6	A	Fine Sl		Fe sl wk Str
200/175		7.18	B1Ia	B1	830/68	B5	IIaG-E	B	[illegible]	broken spectrograph	Fine
				BC	830/68	B5	IIIa J	A		T = 25°F 509?	faint s/blue
										* some pattern at 4649/5 T (but that's from a completely different batch of IIIa J s) 07119-16111 Tk	

1-49

Date Dec. 16/17 Wed-Thurs Observers Km-Ki

$3^m 68^s$ Emulsion Batches: Tri-E 06121

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46525	HR 8157 = HD 208816	21h 16.9	+37° 49	19:51	20:45	9° 52	+37° 15	F/—	6-6
46525?	Spot Calib for 46525	"	15 min	@ 15v	D1 2:00 D3 4:30	D2 4:10			
46526	HD 47105 = 7 Cep	6h 31.9	+16° 29	20 52	20:54	09° 7E	+16° 23	F/—	9-7
46527	HD 47105	"	"	20:55	20:57	09° 15E	"	F/—	9-9
46527E	Focus Test					00° 30W	+55° 15	F/—	12-17

Spectr. Temp. 33°F ..... Dome Temp./Hum. 24°F / 92% ..... Transparency Conditions .....

Focus ... 508 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
900/400	3-4"	5.89	F2	BC	830/-58	BS	IIaOE	A	Cook/Evans		Fine
		1									
20/11		1.13	"	"	"	"	"	B	A220-Cy	T_{spec} = 31°F	Fine
20/8		"	"	"	"	"	"	A	A220-Cy	Cloud	Fine
				"	"	"	"	B		T=30°F F=508 cent vvs/blue	

Comparison Type/Filter Exp.

151

Emulsion Batches:
103a-E ..... 06121 .....
.....
.....

Date Dec. 18/19 Fri-Sat Observers JEL: Ri

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46528T	Focus Test							Fe/-	17+17
46528	HD 16705	2^h $35.^m6$	+42° 22′	17:42	18:52		+42°37′	Fe/-	6 12
46528T ✓	SPOT CAL FOR PLATES 46528				15 MIN @ 15 VOLTS		① D4 8900 ②	① D3 9300	② D2 9810
46529	HD 73618	8^h 34.2	+19° 55′	01:47	02:24	0:40E		Fe/-	7-12

Spectr. Temp. ...26°F..... Dome Temp./Hum. ..19°F....70% Transparency Conditions 152

Focus .....510.....

Spectr. Temp. ..... Dome Temp./Hum. ..10°F.....94% 40/31

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C.	830/.68	B.S.	IIaO-E	A		T26°F F=510	Fine
600/154	3-4	8.47	89 II	B.C.	830/.68	B.S.	IIaO-E	B	Am	clouds ok though	ok
							IIaO-E				
800/110	5-8	7.51	Am	B.C.	830/.68	B.S	IIaO-E	A	Am	T23°F F=511 Clouds ok though	ok

153

Sat-Sun

Date Dec. 19-20 Observers Crew — Ri

Emulsion Batches: Tech-E 12081 - 17121 16 191

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46530	R TRI	$2^h 31.^m0$	$+33°50'$	1:11	2:41	$5^h 43^m W$	$+34°07$	Fe/—	7-7
							① D4 ② D3 ③ D2		
46530T ✓	SPOT CALN' FOR PLATES	46530			15MIN @ 15VOLTS		3900 4300	49	16
46531	R CNC	$8^h 11.^m0$	$+12°02'$	2:47	4:05	$1^h 28^m W$	$+11°38'$	Fe/—	7-7
46532	R BOO	$14^h 32.^m8$	$+27°10'$	4:25	7:12	$1^h 45^m W$	$+26°47$	Fe/—	7-7
46532F	FOCUS 9 + 9					Epics		Fe/—	17-17

Spectr. Temp. ...20°F/17°F Dome Temp./Hum. ...+10°F....95% Transparency Conditions ...CLOUDY/CLEAR.....
at 1:00 AM

Focus .....512/513.

Spectr. Temp. ..... Dome Temp./Hum. +04°F...98%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/250	6"	7.7	M4e -M8e	B.C.	830/.68	150/.3	IIa-O E	A	CW-MIRAS	TELESCOPE LIMIT WEST EXP = 90m	Fine
							IIaO-E				
400/400	6"	7.5	M6e -M8e	"	"	"	"	B	"	EXP = 78m T=17°F/F=513	Fine
400/360	6"	8.5	M3 -M6e	"	"	"	"	A		T=15°F/F=514	Fine
				"	"	150/1.0	"	B		T=13°F F=514	OK

155 #1

Date 20/21 DEC 1981 SUN/MON Observers B.M.-R.I.

Emulsion Batches:
4m 68.5 IIIa-J-Eb. 09061-03121 2½ hrs 37 34
8m 68 IIa-E 12081-17121 17 180

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46532	HD11241	01h 45m.6	+5° 39'	18:47	19:15	00:55E	+5° 49'	Fe/-	IIIa-J
46533T ✓	SPOT CALN' FOR PLATES	46533-			15MIN @ D4		① 17.5U ② 15U ③ 15U 3900 4300 4810		
46534	HD27192	04h 12m.6	+50° 41'	19:19	20:21	02:17E	+50° 49'	Fe/-	IIIa-J
46535	HD37017	05h 30m.4	-4° 34'	20:27	21:36	02:17E	-04 27'	Fe/-	IIIa-J
46535T ✓	SPOT CALN' FOR PLATES	46535			15MIN @ 15VOLTS		① D4 ② D3 ③ D2 3900 4300 4810		
46536	HD33328	05h 04m.9	-8° 53'	21:40	21:58	01:29E	-08 47'	Fe/-	20-20
46537	HD37468	05h 33m.7	-2 39	22:01	22:17	01:45E	-02 40'	Fe/-	20-20
46538	ADS4241D	05h 33m.7	-2° 39	22:14	23:10	00h 46E	-2° 40	Fe/-	6-6-
46539	HD37017	05h 30m.1	-4° 39'	23:16	23:56	00h 03W	-04 33	Fe/-	6-6
46540	HD36485	05h 26m.9	-0° 22'	23:59	00:51	01h 02W	-00°21'	Fe/-	6 6 6
46541	HD36486	05h 26m.9	-0° 22'	00:53	00 56	01h 07W	-00 22	Fe/-	20-20
46542	HD37013	05h 30m.5	-5° 54'	01:03	01.09	01h 16W	-05 58	Fe/-	20 20
46543	HD33328	05 04.4	-08° 53'	01.14	01:44	02 17W	-08°45	Fe/-	20-20
46544	HD37017	05h 30m.4	-4° 31'	01:46	03:21	03 29W	-04°32'	Fe/-	6-6-6
46545	HD89021/2	10h 03.8	+20° 49	03:26	05:28	01 02W	+20°23	Fe/-	6-6-6

Spectr. Temp. ...22°F..... Dome Temp./Hum. 20°F/88% Transparency Conditions .....

Focus .....512.....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/120	1"	5.34	B2IV	BC	830/.68	BS	IIIa-JEb	A	SB-Bln		str
							IIIa-JEb				
50/60		5.50	B2IV	BC	830/.68	BS	IIIa-JEb	B	SB-Bln	T=22°F cloudy	str
30/100		6.92	B2V	BC	830/.68	BS	IIIa-JEb	A	He-Rch*	T=23°F F=511	Fine
							IIaO-E				
20/50		4.07	B2IVe	BC	830/.68	BS	IIIa-JEb	B	Be-Bln	T=23°F	str
20/50	2	3.51	09.5V	BC	830/.68	BS	IIIa-JEb	A	SB-Bln		str
80/100		6.4	B2V	BC	830/.68	BS	IIIa-OE	B	VB-Bln	T=23°F	v sl str comp. sl. str.
50/100		6.92	B5V	BC	830/.68	BS	IIIa-OE	A	He-Rch*		v sl str
30/100		6.70	B2V	BC	830/.68	BS	IIIa-OE	B	He-Rch*	T=23°F F=512	fine
20/40		1.99	09.5II	BC	830/.68	BS	IIIa-JEb	A	CNO*		sl. str.
20/40		2.49	09III	BC	830/.68	BS	IIIa-JEb	B	CNO*		sl str.
20/50		4.07	B5IV	BC	830/.68	BS	IIIaJEb	A	Be-Bln		badly fogged
200/200		6.92	B5V	BC	830/.68	BS	IIIa-OE	B	He-Rch*		v sl str
50/100	1	7.20	B5V n2	BC	830/.68	BS	IIIaO-E	A	VB-Bln	T=23°F	sl str.

157 #2

Date DEC. 20/21 1981 SUN MOON Observers BL-RS

Emulsion Batches:
IIaD-E 1208I-1712.1.
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46596	HD 112028	12h48.2	+83°58	05:35	06:48	00 19E	+83°26	Fe/-	14-4-
46546F	FOCUS TEST							Fe/-	17-7

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions Cloud aft. and mi...
Increasing cloud toward morning
Focus 512
Spectr. Temp. ..... Dome Temp./Hum. 18°F / 97%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
20/60	1"	5.28	BB	BC	830/.68	BS	IIIa-J	B	Shell - Bl.		fine
				BC	830/.68	BS	IIa-E	A		T=22°F E=72	v sl red
									all IIa-Os have ragged edges with peeling emulsion		
									IIIa-Js have edges fogged		

159

Wed / Thurs.

Date ...Dec. 23/24, 1981 Observers ...GIS - Tn.....

Emulsion Batches:
IIaO-E
.....
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46547	HD 45995			01+42					

Spectr. Te
Focus....
Spectr. Te
Exp. Mtr

Spectr. Temp. +35° F ..... Dome Temp./Hum. 28°F / 88% Transparency Conditions 160

Focus ..... 5.07 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
										Cloud	

161

Date Thur. Fri. 7/8 Jan 1982 Observers B.M.-R.

8m68° 4m68°

Emulsion Batches:
IIaO-E 12.091-17121
IIaJ F6 09061.07012
IIaO-E 12.081-20121

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
46547F	FOCUS TEST							Fe/-	17-17	
46547	HD 11241	01H 45m.6	+54° 39'	17:25	18:34	00H 27m E	+55° 01'	Fe/-	20-20	40/110
46548	HD 23323	03H 04m.4	-8° 53'	18:40	19:28	02H 48E	-08 47'	Fe/-	20-20	4 100
46549	HD 36486	05 26.9	-00°22'	19:36	19:41	02h 58E	-0 23'	Fe/-	20-20	2/50
46550	HD 36485	05 26.9	-0°22'	19:46	21:57	00H 42E	-0° 22'	Fe/-	6-6-6	20/20
46550T1 ✓	SPOT CALN' FOR PLATES 46547-				15MIN @ D4	① 175U 3900	② 150 4300	③ 150 4810		
46550T2 ✓	SPOT CALN' FOR PLATES 46550-				15MIN @ 150	① D4 3900	② D3 4300	③ D2 4810		
46551	HD 37468	05H 33m.7	-2° 39'	22:17	22:38	00H 07E	-2° 39'	Fe/-	20 20	20/50
46552	HD 33328	05 04.9	-08°53'	22:45	23:15	00H 59W	-09°48	Fe/-	20 20	40/40
46553 ✓	HD 44172	06 15.3	+14° 45	00.33	01:55	00° 28W	+14040	Fe/-	6-6-6	50/73
46553T	SPOT CALN' FOR PLATES 46553-				15MIN @	D4 150 3900	D3 4300	D2 4810		
46554	HD 88021/2	10 03.8	+20°49	02:00	05:18	01H 54m W	+20°23'	Fe/-	6-6-6	5/200
46555	HD 97991	11 11.1	-02° 55	05:15	07:13	02H 52m W	-3° 24'	Fe/-	6-6-6	20/80
46556F	Focus test							Fe/-	40 40	

Spectr. Temp. 300F Dome Temp./Hum. 22°F/70% Transparency Conditions Occasional Cloud 1/2
Some snow reflecting Good

Focus 509

Spectr. Temp. ..... Dome Temp./Hum. 10°F/90% 40/29 80%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C.	830/.68	B.S.	IIIa-E	A		T 30°F F: 509	ok
40/110	~5"	5.34	B2V	B.C.	830/.68	B.S.	IIIa-JEb	B	SB-Bln	DK slide not fully in, red edge seen when PH removed remark	sl str
30/100		4.07	B2IVe	B.C.	830/.68	B.S.	IIIa JEb	A	Be-Bln		vsl str
40/50		1.99	09.5II	B.C.	830/.68	B.S.	IIIa-J-Eb	B	CNO-Prog	T=26°F F=510	strong
200/201		6.70	B3IIp	BC	830/.68	B.S.	IIIaE	A	He-Rich*	cloudy	v sl str
							IIIaJ-Eb				
							IIIa-E				
20/50		3.51	09.5V	BC	830/.68	B.S.	IIIa-JE	B	SB-Bln		sl str
40/47		4.07	B2IVe	B.C.	830/.68	B.S.	IIIa-JEb	A	Be-Bln	Clouds + snow T=23°F F=511	
50/73		7.29	B6V	B.C.	830/.68	B.S.	IIIa-E*	A	Runway	T=21°F F=512	
							IIIa-E*				
50/200		7.20	$B9^{95}_{113}$	BC	830/.68	B.S.	IIIa-E*	B	VB-Bln	cloudy	v sl str
50/90		7.18	B2V	B.C.	830/.68	B.S.	IIIa-E*	A	Runway	T=17°F F=513	fair
				B.C.	83/.68	B.S.	IIIa-J-Eb	B		T=17.5°F F=513	ok

163 Sat-Sun

Date .... Jan. 9-10 .... Observers .... Crw-Li .....

$8^m 68^s$

Emulsion Batches:
IIaO-E 12081-20121
.....
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
46556F	FOCUS TEST							Fe/–	17½	
46556	R TRI	$2^h 31.^m0$	+33°50′	17:46	20:31	$0^h 54^m$ W	+34°07	Fe/–	7-7	20/100
							① D4 ② D3	③ 12½		
46556T ✓	SPOT CALN' FOR PLATES 46556-				15MM @ 150VOLTS		3900 4300	4810		
46557	ζ ORI (I)	$5^h 49.^m7$	+07°23′	20:43	20:45	2 10E	+7°23′	Fe/–	9-9	20/20
46558	ζ ORI (II)	"	"	20:50	20:54	2 01E	"	Fe/–	9-9	20/25
46559	ζ ORI (III)	"	"	20:56	21:00	$1^h 55^m$E	"	Fe/–	9-9	20/31

Spectr. Temp. F 18°F/ Dome Temp./Hum. +05°F 70% Transparency Conditions ... CLEAR 164
Focus ... 513 -low cloud
Spectr. Temp. ... Dome Temp./Hum. -02°F ... 40/39

Comparison Type/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/- 11					B.C	830/68	150/1.0	IIa-E	A		F 513 T 18°F	ok
Fe/- 77 13 32 4910	200/100	5"	7.8	M1e -M1e	"	"	150/.3	IIa-E	B		EXP = 165m exposed some	ok
								IIaO-E				
Fe/- 99	20/20		2.28	MtJab	Bc	830/.68	RS		A		F=515 T=11°F	good
Fe/- 99	20/25		"	"	"	"	"		B			fine
Fe/- 99	20/31		"	"	"	"	"		A		mostly covered with thin cloud -shut down at 21:00	fine

16 Mon-Tues

Date J...1/[illegible]/3[illegible] Observers ...[illegible]/14-IR...

868° Emulsion Batches:
I-00 E 12081-20121
I-00 E 12081-11012 26 208

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
[illegible]F	Focus Test							Fe/-	17
46560	HD[illegible]	21h 05.4	+37° 41	17:39	19:13	5° 03W	+38 06	-/-	6-6
46560T ✓	Spot cals for Plates 46560 - 46564				15 min @ 15V		D3 4330	D2 4310	
46561	HD17463 [illegible]	02h 43.0	+68° 28	19:20	[illegible]	2 40W	[illegible]	-/-	6-6
46562 *	HD2663 - [illegible]	04h 7.5	+48° 9	22:21	23:03	01 51W	+48° 19	Fe/-	6-6
46563 *	HD39001 - 20m	5h 49.7	- 7° 23	23:12	23:20	00 34W	+7° 22	Fe/-	7-7
46563A	HD39001 - 40m	"	"	23:21	23:35	00 48W	+7° 12	Fe/-	7-7
46564	HD2473 - 56m	6h 57.2	+20° 43	23:40	00 05	00 11W	+20 38	-/-	6-6
465656	HD29226	4h 22.1	+21 24	00:22	01.19	04 01W	+21 33	-/-	7-7-7
46565T ✓	Spot cals for Plates 46565 - 46569				15 min @ 15V		@ D4 3900 @ D3 4300	@ D2 4810	
465667	HD36695	5 28.1	-01 14	01:25	02:06	03 43W	-01 10	Fe/-	7-7-7
465678	HD47129	6 32.0	+6 13	02:11	03:34	04 06W	+06°09	Fe/-	7-7-7
465689	HD118216	13 30.3	+37 42	03 93	04 36	02 11E ×	+37°15	Fe/-	7-7-7
465697 10	HD126661	14 33.1	+36 32	04:40	07:18	00 03E ×	+35 59	Fe/-	7-
46569F	Focus Test					00 03E	+35 59	Fe/-	20-20

Spectr. Temp. 10°F ..... Dome Temp./Hum. 0°F ..... 80% Transparency Conditions ..... Lazy 166

Focus ..... 515 ~3 AM −16°F

Spectr. Temp. ..... Dome Temp./Hum. −12°F 82% 90/90

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/	BS		A		elevated effect! why?	OK
20/	5"		F2	BC	830/			B		ONE EXPOSED BOX	s/wk
										broken in 2 large pieces	
20/				BC	830/			A		Spec 7:°F 517	sl str.
		5.10		"	"	"		B		T = -0.1°F	sl str.
/120		2.28		"	"	"		A		T = -03°F	strong
/3		"	"	"	"	"		B			V str
		4.3-5.1		"	"	"		A		T = -03°F	Str
30/ 110	4-5	60	Am	"	1200/.005	"		B		T = -04°F Sat 513	sl wk
										ANOTHER EXPOSED BOX	
30/ 80		54	B IV	"	"	"	"	A		T = -05°F	sl wk
30/ 90		60	08	"	"	"	"	B	"	"	sl wk
30/ 200		4.9	F2 IV					A		T = -07°F	Fine fe wk st
100/ 160	4-5	69	10					B			sl wk
		* Note label mistake						A		9:-08° F: 513	No mid exp recorded

16] THURS/FRI

8m69°

Emulsion Batches: II-O-E 12081 ... 11012 23 206

Date JAN 14/15 1982 Observers Lg - Tn

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46571	HD 1337	0 12.4	+50 53	17 51	19:55	≈2 40W	+51 19	Fe/-	9-9-9
46572	HD 28226	4 22.1	+21 24	20:06	21:05	0 01E	+21 35	Fe/-	9-9-9
46572T	Spot Calc for 46571-				15m @ 15V	D4 3400	D3	D2 4810	
46573	HD 36695	05 28.1	-1 14	21 10	21:46	00 27E	-1 11	Fe/-	9-9-9
46574	HD 36486	05 26.9	-0 22	21 49	21:54	00 16E	-0 19	Fe/-	12-12
46575	"	"	"	21:55	21:58	00 13E	"	Fe/-	12-12
46576	HD 37043	05 30.5	-5 59	22:04	22:09	00 05E	-5 55	Fe/-	12-12
46577	"	"	"	22:10	22:17	00 03W	"	Fe/-	12-12
46577F	Focus for 4					01 22W	+13 13	Fe/-	25-25

Spectr. Temp. +17 Dome Temp./Hum. 5°F/95% Transparency Conditions .. clouds off & on ..... 68..

Focus ..... 509 .....

Spectr. Temp. ..... Dome Temp./Hum. ...../.....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
900/550	3"	6.0	09III	BC	1200/-.025	BS	IIaO e	B	MSB-Ly	clouds 140 counts in first 75 min +17 Set 509	V s/w lt
700/510	"	6.0	Am	BC	1200/-.025	BS	IIaO e	A	Hyades-Ly	some cloud Set 510 T: +13°F	Fine emulsion peeling
							IIaJ e				
200/250	2-3	5.2	B1V	BC	1200/-.025	BS	IIaO-e	B	MSB-Ly		Fine
20/26	"	2.2	09.5II	"	"	"	"	A	"		Fine
20/31	"	"	"	"	"	"	"	B	"		Fine
20/30	"	2.6	09III	"	"	"	"	A	"		Fine
20/31	"	"	"	"	"	"	"	B	"		Fine
				"	"	"	"	A	"	cloud	red!

peeling emulsion on all

169

Fri - Sat

Date Jan 15-16 1982 Observers JBL: TA

Emulsion Batches: IIaO-E 12081 - 14012 20 194

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46578F	Focus Test							Fe/-	20-20
46578	HD 9138	01 24.9	+5 38	17 36	18 01	00 04E	+6 02	Fe/-	10-10
46579	HD 28024	04h 20.3	+22° 35'	18 08	18 16	02 50E		4	10-10
46580	HD 27192	04 12.6	+50 41	18 22	18 59	02 00E	+50 51	11	9-9
46580T	Spot Cals	for 46578-80		15min	@ 15V	D4 3900	D3 4300	D7 4810	

Spectr. Te
Focus...
Spectr. Te
Exp. Mtr.
45/52
40/38
200/35

Spectr. Temp. +19°7 Dome Temp./Hum 45°F/78% Transparency Conditions Hazy to cloudy 170

Focus 513

Spectr. Temp. ..... Dome Temp./Hum. /

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/168	BS	IIaO	A			good
40/52	2"	5.1	K2III	"	"	"	IIaO-E	B	std vel		good
40/38	1-2	4.56	A8V	"	"	"	IIaO-E	A	Am		fine
200/235	"	5.50	B2IV	"	"	"	IaO-E	B	SB-Bln	cloud	sl sm
							IIaO-E				
										emulsion dr	

171

Sun-mon

Date JAN. 17-18/82 Observers K.K.-Tw

Emulsion Batches:
E.O.-E. 12081 - 14012

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46581F	Focus Test					0 15W	+6 30	Fe/-	20-20
46581	HD 9138	01 24.9	+5 38	17 42	18 27	≈0 30W		Fe/-	10-10
46582	HD 22117	04 55.9	-5 52	18 33	19 47	≈2 00E		Fe/-	~~8-8~~

Spectr. Temp. 518 Dome Temp./Hum. 73°F/72% Transparency Conditions hazy - cloudy 172
Focus +25°F gusty
Spectr. Temp. / Dome Temp./Hum. /

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/168	BS	IIaO	A	T=+25°F	set 518	ok still low wind
40/36	6"	5.1	K4III	"	"	"	IIaO-E	A	std Vel		good
200/56	4"	7.27	K3V	"	"	"	"	B	AsmSp/KK	cloud	sl wk
										peeling emulsion unbeath	
										developed with 15/16 batch	

173 Mon-Tues #1

Date Jan 18/19, 1982 Observers Ewa-Te / Gies-Tn

8m 68s

Emulsion Batches:
II a0 E-12081 - 14012 18 195
II a0* E 12081 - 18012 17 187

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46583E	Focus Test					0 10W	+6°	Fe/-	25-25
46583	HD 371[illegible]	0h 34.[illegible]	+[illegible] 59	17:[illegible]	17 38	0 32W	+56 24	Fe/-	11-11
46584	HD [illegible] = HR 157	2[illegible]	+57 [illegible]	17:46	18:27	[illegible]	+3[illegible]	Fe/-	8-8-8
[illegible]	Spol Calib [illegible]		46583-93.		[illegible]	[illegible]	[illegible]	D3 +30	D2 +10
46585	HD [illegible]	[illegible]	+50 49	18:32	21:[illegible]	[illegible]	[illegible]	Fe/-	8-8-2
46586	HD [illegible] = 2 CMi	[illegible]	[illegible]	21:24	21 26	3 00W	+89 15	Fe/-	11-11
46587	HD [illegible] = [illegible] Aur	[illegible]	+[illegible]0 33	21 42	23:10	[illegible] W	+30 [illegible]	Fe/-	8-8
[illegible]	HD 24[illegible] = 53 Per	4h 21.8	+41° 4	23:14	[illegible]	2h 22 W	41 13	Fe/-	11-11
46589	HD [illegible] = 5 Cam	6h 58.2	+20° 3	23:32	23:47	[illegible]	+20 [illegible]	Fe/-	11-11
[illegible]	HD [illegible] 1 Per	3h 38.9	+42° 16	23:51	00:00	3h 52W	+42 37	Fe/-	11-11
46591	HD [illegible] = 5 Mon	8h 3.6	-2° 42	00 05	00:21	0 10E	-2° 56	Fe/-	1-1
46592	HD 45995	6 35.6	+11 19	00.26	00:50	1 56W	+11 16	"	11-1
46593	HD 52533	6 56.5	-2 59	00 54	02:53	3 32W	-3 06	"	8-8-8
46594	HD 88021/2	10 03.8	+20 49	02:58	05:27	2 55W	+20 25	"	8-8-8
46594T	Spol Calib for 46594			15 - 6 kV	2 mA	D3 +30	D2 +20		

Spectr. Temp. +10°F ..... Dome Temp./Hum. +7°F/72% Transparency Conditions .. getting hazy ..... 1.74...

Focus ... 5.16 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... /

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/65	BS	IIIa-D	B			cont v s/Rad
40/37	2"	2.5	KoK	BC	83[illegible]	BS	IIIa-E	A	3N v2		
40/40	1-2"	5.9	FL	"	"	"	"	B	Cyd/Evno		Fine
							IIIaJ			exposed through glass (cover on Nancy)	
200/200	2"	12.4- [illegible]	[illegible]	"	"	"	"	A	Cyd/Evno	cirrus	
[illegible]/18	1"	2.5-2.9		"	"	"	"	B	Cyd/Evno	Nancy	
200/101	2"	6.0	[illegible]	"	"	"	"	A	Cyd/Evno	spot T = 9°F	Fine
[illegible]/31		~5.	GII	"	"	"	"	B	Cyd/Evno		
40/[illegible]		4.4-5.1	[illegible]	"	"	"	"	A	Cyd/Evno	Dome 4°F [illegible]	Fe str Fine
40/36	2"	9.2	FSII	"	"	"	"	B	Cyd/Evno	[illegible]	
80/81		5.02	[illegible]	"	"	"	"	A	Cyd/Evno	[illegible]	Fe s/str Fine
200/175	1"	8.04	82V	"	"	"	"	B	Runway *		Fe s/str Fine
200/92	1-3"	7.61	09II	"	"	"	"	A	Runway *	cloud	Fe str s/wk
200/330	2"	7.20	gGE A2	"	"	"	IIIaO-E*	B	VB -3 En	Emulsion peeled	Fe s/str Fine
							IIIaO-E*				

175 Mon - Tues (cont'd) #2

Date Jan 18/19, 1982 Observers G.H.S. - Tm

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46595	HD 103095	$11^h 47.2^m$	$+38° 26'$	05:31	06:44	$2^h 29^m W$	$+37° 51'$	Fe/–	8-8-8

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions 176

Focus ..... 516 .....

Spectr. Temp. ..... +9°F ..... Dome Temp./Hum. 43°F / 90% .

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
200/210	1"-2"	7.20	G8 ~~VI~~	BC	830/.68	BS	IIaO-E*	A	Asm Sp/kK	cloud	Fast Fine

17 Thurs/Fri. 8" 68°

Emulsion Batches: IIaO-E 12081 — 18012 16 191

Date Jan. 21/22, 1982 Observers GIS-Th

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46596F	Focus Test					0°15"W	+12°09'	Fe/-	20-2
46596	HD 210839	22h 08.1	+58 55	17 44	18:13	3 49W	+59 18	Fe/-	10-10
46597 ✓	HD 3950	0 37.0	+51 48	18:16	21:17	4 22W	+52 13	Fe/-	7-7-7
46597T	Spot Cal for 46596	-603		15min @ 15V		D4 3400	D3 4300	D2 4810	
46598	HD 29866	4 37.3	+40 36	21:21	22:13	1 17W	+40 43	Fe/-	7-7-7
46599	HD 37657	5 35.1	+43 00	22:16	01:14	3 21W	+43 01	Fe/-	7-7-7
46600	HD 34078	5 09.7	+34 12	01:18	02:25	4 58W	+34 16	Fe/-	7-7-7
46601	HD 45112	6 09.5	+13 53	02:29	03:06	4 42W	+13 50	Fe/-	10-10
46602	HD 97991	11 11.1	-2 55	03:11	06:49	3 23W	-3 22	Fe/-	10-10
46603	HD 115521	13 12.6	+6 00	06:52	07:13	1 45W	+5 32	Fe/-	10-10

Spectr. Temp. 14°F Dome Temp./Hum. +5°F/66% Transparency Conditions Fine 178,

Focus 514

Spectr. Temp. +2°F Dome Temp./Hum. ~~67~~/70%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.68	BS	IIaO-	A			
40/35	4"	5.29	06 I	"	"	"	IIaO-E	A	Runaway *		Fine
200/175	5"	7.05	B1 II	"	"	"	"	B	Runaway *	Some cirrus	Fine
							"				
a/175		5.87	B1 I	BC	830/.68	BS	"	A	Runaway *	T=9° F=516	Fine
∞/175	5"	7.22	B1 Ine	"	"	"	"	B	Runaway *		Fine
∞/175	4"	6.18	09 5 I	"	"	"	"	A	Runaway *	T=7° F=516	Fine
200/100		5.67	B1 II	"	"	"	"	B	Runaway *		v wk Fe sl wk wk Fe
200/172	4"	7.18	B2 I	"	"	"	"	A	Runaway *	T=5° F=517	Fine
40/35	4"	5.0	M2 IIe	"	"	"	"	B	Std. Vel.		sl wk
										* Filter wheel problem on Fe's no doubt filter # was # 6 through	

Date Jan 25-26 Observers [illegible]

8m 68° Emulsion Batches: IIaO-E 12291 - 18012 21 216

IIaO-E* 12081 - 21012

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp	Exp Mtr.
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	12:41	[illegible]	[illegible]	51° 11	Fe/-	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	18:56	21:15	4h 57W	51° 11	Fe/-	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
46606	[illegible]	[illegible]	[illegible]	[illegible]	23:30	5 11W	+55°17	Fe/-	[illegible]	[illegible]
46607	HD53173 = SG	6h 52.2	+20° 43	23 35	23:47	0 48W	+20° 27	Fe/-	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
46609	HD43818	6 13.2	+23 30	00:20	01:39	3h 25W	+23 25	Fe/-	[illegible]	[illegible]
46610	HD118216	13 30.3	+37 42	01:49	02:20	3 05E	+37 17	Fe/-	[illegible]	[illegible]
46611	HD65041	7 51.7	+43 47	02:31	05:06	5 14W	+43 33	Fe/-	[illegible]	[illegible]
[illegible]	Spec Comp.	for 46609-15		15m	15V	D4 3900	03 4500	D2 4810		[illegible]
46612	HD118216	13 30.3	+37 42	05:11	05:41	0 12W	37 15	Fe/-	[illegible]	[illegible]
46613	HD139892	15 35.6	+36 58	05:45	06:10	01 25E	+36 40	Fe/-	[illegible]	[illegible]
46614	"	"	"	06:13	06:37	00 58E	"	Fe/-	[illegible]	[illegible]
[illegible]	HD136202	15 14.2	+ 2 09	06:42	07:09	00 02E	+1 51	Fe/-	[illegible]	[illegible]
[illegible]	For 45					00 01E	+1 51	[illegible]	[illegible]	[illegible]

Spectr. Temp. +15 / ..... Dome Temp./Hum. +10 / 52 Transparency Conditions . Fine...s/haze.....180...

Focus .....5/5.....

Spectr. Temp. 7°F / ..... Dome Temp./Hum. -4F / 85%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
10/40	3	5.9	F2	Bc	830/.68	Bs	IIaO	A	Cep/Bow		
" / "	"	7.1	F3 I	"	"	"	"	B	Cep/Bow	Wind 6 on 1st plate: found focus. B 50 sec total the equator	
" / 130	3-4	7.4 9.9	F3 I F5 II	"	"	"	"	A	Cep/Bow		Fine
							"				
" / 30V	3	F5 II	6.3	"	"	"	"	B	Cep/Bow		Fine
" / 80	2-3	F5 II	4.3	"	.4	"	"	A	Cep/Bow		Fine
" / 100	2-3	F5 II	4.3	"	"	"	"	B	Cep/Bow		Fine
10/175	3	Bo II	6.8	"	"	"	IIaO-E	A	Tau pisc	T= +11°C	
40/100	3	F2 IV	4.9	"	1200/.035	Bs	"	B	RSCVn/Ly	T=11° F Sat 50%	Fine
" / 200	2-3	B2 V	6.9	"	"	"	"	A	Sp Bow/Ly	Sat d...b	Fair/sat vs/sat
							"				
40/100	3	F2 IV	4.9	Bc	1200/.035	Bs	"	B	RSCVn-Ly	T=8°F	Fine
40/60	3	B7 V	5.1	"	"	"	"	A	MSB-Ly		Fair/sat Fine
10/63	"	"	"	"	"	"	"	B	"		Fair/sat Fine
10/40	3	F8 IV	5.6	"	"	"	"	A	Std Vel.		
								B		T=7°F Sat=50%	Fine

181 Tues / Wed.

Date Jan 26/27, 1982 Observers G.S. - Th

8h 69° Emulsion Batches: IIaO-E 12.081 – 26012, 207
IIaO-E* 12.081 – 26012 (½ box) 21, 208

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46616F	Focus Test					0h 13m W	+15° 37'	Fe/–	23-33
46616	HD 4142	00h 38m.9	+47° 19'	18:50	19:04	2 27W	+47 45	Fe/–	10-10
46617	HD 37737	05 35.7	+36 09	19:08	21:59	0 25W	+36 11	Fe/–	7-7
46617T ✓	Spot Calibration	for 46616-17		15 min. @	15 V	D4 3900	D3 4300	D2 4810	
46618	HD 39680	05 49.0	+13 49	22:03	00 05	2 19 W	+13 50	Fe/–	7-7
46618T ✓	Spot Calibration	for 46618-21		15mn. @	15 V	D4 3900	D3 4300	D2 4810	
46619	HD 43112	06 09.5	+13 53	00:08	00:30	2 24 W	+13 57	Fe/–	10-10
46620	HD 45995	06 25.6	+11 19	00:34	00:57	2 35W	+11 15	Fe/–	10-10
46621	HD 81797	09 22.7	-8 14	01:04	01:18	0 01E	-8 15	Fe/–	10-10
46622	HD 97991	11 11.1	-2 55	04:55	06:32	3 30W	-3 22	Fe/–	7-7

Spectr. Temp. 13.5°F Dome Temp./Hum. 9°F / 60% Transparency Conditions Fine - cloudy 1.2

Focus 514

Spectr. Temp. 11°F Dome Temp./Hum. 7°F / 91%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/68	BS	IIaO	A		Fe are problems - late start	ok, stellar weak
40/38	1"	553	B5V	"	"	"	IIaO-E	B	Runaway *		v sl. str.
200/175	2"	8.31	O9.5III(n)	"	"	"	"	A	Runaway *		v sl wk
							"			Please write 2 digit nos on cal. pl.	
200/175	2"	8.01	O6.5I	BC	830/68	BS	IIaO-E*	B	Runaway *	T=13°F	fine
							"			labeled 18 - 20	
200/175		5.67	B1V	BC	830/68	BS	"	A	Runaway *		v sl str
200/175	2"	6.94	B2Ivne	"	"	"	"	B	Runaway *	T=11°F F=535	v sl str.
40/36		2.2	K2III	"	"	"	"	A	Std Velocity	Cloud	good
200/125	3"	7.18	B2V	"	"	"	"	A	Runaway *	T=11°F ←(in box SR) cloud	good

183 Wed. / Thurs.

Date Jan 27/28, 1982 Observers Gus-Ri

Emulsion Batches:
IIaO-E 12081-27012 16 181
.....
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46623F	Focus Test					0h 10mW	+20° 00'	Fe/—	17-17
46623	HD 210839	22h 08m.1	+58° 55'	17:51	18:06	4h 05mW	+59° 20'	Fe/—	10-10
46624	HD 29866	4 37.3	+40 36	18:12	18:43	1 50E	+40 45	Fe/—	10-18
46624T ✓	SPOT CHK'N' FOR	PLATES	46623-27		+5MIN @	15VOLTS	D4 3900	D3 4380	D2 490
46625	HD 34078	5 09.7	+34 12	18:46	19:17	1 48E	+34 17	Fe/—	10-10
46626	HD 36576	5 27.7	+18 28	20:06	20:32	0 50E	+18 32	Fe/—	10-10
46627	HD 37657	5 35.1	+43 00	20:35	21:52	0 21W	+43 03	Fe/—	7-14

Spectr. Temp. 18°F ..... Dome Temp./Hum. 18°F/70% Transparency Conditions 184

Focus ..513.....

Spectr. Temp. 22°F ..... Dome Temp./Hum. 19°F/77% 40/35

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.68	BS	IIaO-E	A			ok
40/35	2-3"	5.29	O6f	"	"	"	"	B	Runaway *		fine
40/35		5.87	B8III$_n$	"	"	"	"	A	Runaway *		fine
							IIaO-E				
40/35	3	6.18	O9.5II	B.C.	830/.68	B.S.	IIaO-E	B	RUNWAY *	cloudy	fine
40/35		5.71	B2III$_e$	"	"	"	"	A	Runaway *	T=21°F F=512	fine
50/30		7.22	B3Vne	"	"	"	"	B	Runaway *	BF01FN 2 PIECES cloudy again	

185

Date JAN. 28-29 1982 Observers BLK - RI

Emulsion Batches: IIaO-E 12081 - 27012 17184

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46628	HD 88021/2	10 03.8	+20° 49	23:41	00:49	01:05 E	+20° 24	Fe/-	7-14
46628T ✓	SPOT CHECK TOP	PLATES 46628-			15MIN @ 15VOLTS	24 3900	P3 9300	22 9810	
46628F	Focus Test					01 05 E	+20° 24'	Fe/-	17-17

Spectr. T... Focus... Spectr. T... Exp. Mtr. 80/...

Spectr. Temp. 32°F ..... Dome Temp./Hum. 23°F 76% Transparency Conditions . Good at start then lots of clouds. Lt. snow thereafter Screw it!

Focus 509 .....

Spectr. Temp. ..... Dome Temp./Hum. 20°F / 78%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
80/56	3 4	7.20	9G54 A2	B.C.	834/680	B5	IIaO-E	A	VB-Blu	Clouds then lt. snow	v sl wk
				BC	930/63	B5	IIaO-E	B		30°F	v sl blue

187

Date Feb 11/12 Observers Ros Ri / Ly - Ru

8m 68 Emulsion Batches: IIaO-E. 12081 - 27012

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46628F	Focus test					0 0 10W	+7° 37	Fe/—	17-17
46629	HD 203156 - HR 8177	21h 15.4	+37° 49	17:56	18:58	5h 45W	+37° 08	Fe/—	7-7
46630	HD 9250	1h 25.9	+62° 4	18:39	21:03	4:03W	+62° 21	Fe/—	7-7
46631	Spect Calib for 46629								
46632	HD 20902 = α Per	3h 17.3	+49 30	21 07	21 10	2 12W	+49 37	Fe/—	10-10
46633	HD 20902 = α Per	"	"	21 16	21 18	2h 20W	+49° 37	Fe/—	10-10
46634	HD 23230 = 6 Per	3h 26.4	+42 36	21 16	21 20	2h 15W	+42° 30	Fe/—	10-10
46635	HD 47 = T Tau	4h 19.2	+07 04	21 35	23:12	1h 20W	+07 04	Fe/—	7-7
46636	HD 47329 = 6 Gem	6h 32.2	+25° 19	23 26	23:39	1h 27W	+25° 16	Fe/—	10-10
46636	HD 52973 = ζ Gem	6h 58.2	+20° 43	23 43	00:08	1h 37W	+20 46	Fe/—	10-10
46637	HD 36486	5 26.9	-00 22	00:17	00:41	3 42W	-00 16	Fe/—	15-15
46638	HD 81797	9 22.7	-08 14	00:47	01:01	0 02W	-8 30	Fe/—	15-15
46639	"	"	"	01:03	01:18	0 21W	"	Fe/—	15-15
46640	HD 99028	11 18.7	+11 05	01:23	01:42	1 09E	+10 40	Fe/—	9-9
46641	HD 118216	13 30.3	+37 42	01:46	02:16	2 46E	+37 17	Fe/—	9-9
46641F	Focus test					0 0	"		23-23

Spectr. Temp. 25°F ..... Dome Temp./Hum. 20°F 70% Transparency Conditions good at start '89

Focus ... 510 ..... severe haze by midnight

Spectr. Temp. ..... Dome Temp./Hum. 11°F ..... 100% 40/35 peeling emulsion on all

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.65	B5	IIaO E	A			
40/ 40	1-2"	6.3	F2	BC	830/.65	B5	IIaO E	B	Cyph/Evans		fine
30/ 125	2-4	7.9	F2	"	"	"	IIaO E	A	Cyph/Evans		fine result
							IIaO E				
20/ 40		2.7	F5	"	"	"	"	B	Cyph/Evans	T spec 23°F Focus 511	sl. strong
20/ 30		"	"	"	"	"	"	A	"		sl. strong
20/ 10		1.3	F5	"	"	"	IIaO E	B	Cyph/Evans		strong
40/ 80		6.5	F5	"	"	"	IIaO E	A	Cyph/Evans		fine
20/ 20		4.0	F5	"	"	"	IIaO E	B	Cyph/Evans	T spec 20°F Focus 514	v sl. str.
20/ 20		4.9-5.1	F5-F10	"	"	"	IIaO E	A	Cyph/Evans		sl strong
20/ 19	3	2.0	09.5 II	BC	1200/.005	B5	IIaO E	B	MEB-Ly	numbered 36 T spec = 19°F Focus 536	good but spotted
20/ 30		2.2	K3 II	"	"	"	"	A	std vel	= 18°F Focus 526	good
20/ 20		"	"	"	"	"	"	B	"	= 18°F Focus 523	good
40/ 60		4.3	F2 IV	"	"	"	"	A	Ayres-KK	= 18°F Focus 536	good
40/ 13		4.9	F2 IV	"	"	"	"	B	F5 IV-Ly	chisel	weak
								A		BROKEN = 18°F	

189

Date Thurs: Fri. Feb 7 5 1963 Observers Bla - Ri

4m 68°
5m Average 69°

Emulsion Batches:
IIIaJ c.b. 09061 - 15012 22 310
IIa-E ... 12.081 - 02022 26 164

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr
46642F	FOCUS TEST							Fe/-	.17	
46642	HD 33328	05 09.4	-08° 53	13 05	19 04	01 52 E	-08 45	Fe/-	20-70	40/50
46643	HD 11241	01 45.5	+54° 39	19 10	21 09	04 00 W	+55° 021	Fe/-	13-13-	40 30
46-43T ✓	SPOT CALN FOR PLATES 46642-43				15 MIN @ 04	① 17.5 U 39 00	① 15 U 4300	③ 15 U 99 10		
46644	HD36485	05 26.9	-0° 22'	21.13	23:51	03 03 W		Fe/-	7-7-7	30 14
46644T ✓	SPOT CALN FOR PLATES 46644.				15 min @ 15 U's	① D4 2900	② D3 4300	③ P2 48 10		

Spectr. Temp. ..23°F..... Dome Temp./Hum. +08°F 65% Transparency Conditions Patchy cirrus increasing w/ time 190

Focus .....511.....

Spectr. Temp. ..... Dome Temp./Hum. +09°F/80%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C	830/.68	BS	IIaO-E	A		T=23°F F=511	vsl red
20/50	4.6	4.07	BOIVe	B.C.	830/.68	BS.	IIIaJaD	B	Be-Blu		re OK Fine
90/100	4	5.34	BOII	B.C.	830/.68	BS.	IIIaJaD	A	SB Be	T=21°F F=512	res/wk Fine
							IIIaJaD				good!
200/134	4	6.70	BOIIp	B.C.	830/.68	BS	IIaO-E	B	He-Rich-Blu	T=16°F Broken F=515	s/wk
							IIaO-E				part doubled

191.

Sat. / Sun.

Date February 6/7, 1982 Observers Gies - Tan

Emulsion Batches:

8"68° IIa-O-E 12081 -02022

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46645F	Focus Test					0h10m W	+23° 50'	Fe/—	20-20
46645	HD 4142	00h 38m.9	+47° 19'	18:09	19:37	3 44 W	+47° 45'	Fe/—	10-10
46645T ✓	Spot Calib for	46645		15min	@ 15V	D4 3400	D3 4300	D3 4810	

Spectr. Te
Focus ... Y
Spectr. Te

Exp. Mtr.

+1/26

Spectr. Temp. 19°F ..... Dome Temp./Hum. +19°F / 74% Transparency Conditions ... Cloudy 192

Focus ... 513 .....

Spectr. Temp. ..... Dome Temp./Hum. ... / .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C.	830/.68	BS	IIaO	A			
40/26	3"	5.53	B52	"	"	"	IIaO-E	B	Runaway*	Cloud	s/wk
							IIaD-E				

13 Tues/Wed

Date Feb 9-10, 1982 Observers Rm-Ta

8m 68s Emulsion Batches:
w 10/11 batches IIa-O-E 12081 - 06022 17210

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
9686	HD 30282 = PKNPer	69h 41.1	+36° 33	21:31	23 25	3h 40W	+36 46	Fe/—	7-7-7
9686BT ✓	Spectral Calib for 9686			15,1-6/15,		3100 D4	4300 4310 -3 -2		

Spectr. Ter
Focus
Spectr. Ter

Exp. Mir.

Spectr. Temp. +26 °F Dome Temp./Hum. +19°F/80% Transparency Conditions Cloud [illegible] clearing

Focus 511

Spectr. Temp. Dome Temp./Hum. +11°F/89%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
200/70	5"	7.9–8.3	F6–G1	13C	830/.68	B5	IaO-E	A	Ceph/Evans	cloud	wk
							IaD-E				

195

Date Feb 10-11 / 1982 Observers Ly-Tm

8m 68° w/ 9-10 batch

Emulsion Batches: IIa-O-E 12081 — 06022

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Min.
46647	HD 28226	04 22.1	+21 24	18:18	19:53	00 32W	+21 36	Te/—	10-10-10	100/250
46647T ✓	Spot Cals	for 46647			15 min @ 15V	D4 3700	D3 4300	D2 4810		
46647F	focus.			01:50		00 00	+20 30		25-25	

Spectr. Temp. ...15°F..... Dome Temp./Hum. ~6°F/75% Transparency Conditions Sl. hazy - cloudy 196

Focus .....511.....

Spectr. Temp. ...11°F..... Dome Temp./Hum. ~5°F/84% ~2AM.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
00/250	3"	6.0	Am	BC	1200/-.025	BS	IIaOe	A	Hyades-Ly	clouds	Fine
							IIaOe				
				BC	1200/-.025	BS	IIaO	B		+11 set 512	V. Rad

197. Thurs./Fri.

Date Feb 11/12, 1982 Observers G.S. - T.H.

$8^m 68^s$ Emulsion Batches: IIaO-E 12081-0622

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46648F	Focus Test					$0^h 05^m$ W	+125° 27′	Fe/—	25-25
46648	HD 4142	$00^h 38^m.9$	+47° 19′	18:11	18:27	2 53 W	+47 45	Fe/—	10-6
46648T ✓	Spot cal'n for 46648 −53			15 min @ 15V		IH 3900	D3 4300 D2 4810		
46649	HD 44172	06 15.3	+14 45	18:32	20:34	0 36 E	+14 43	Fe/—	7-7-7
46650	HD 39680	05 49.0	+13 49	20:37	00:48	4 05 W	+13 50	Fe/—	7-7-7
46651	HD 97991	11 11.1	−2 55	00:53	03:16	1 12 W	−3 23	Fe/—	7-7-7
46652	HD 118216	13 30.3	+37 42	03:24	04:00	0 23 E	+37 17	Fe/—	10-10-10
46653	HD 128661	14 33.1	+36 22	04:03	06:35	1 10 W	+36 06	Fe/—	10-10-10
46653F	Focus Test					"	"	Fe/—	25-25

Spectr. Temp. +15°F Dome Temp./Hum. +12°F / 71% Transparency Conditions OK - cloudy - hazy

Focus 514

Spectr. Temp. +12°F Dome Temp./Hum. 15F / 100%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/1.68	BS	IIaO	A			Fine
40/39	2"	5.53	BSII	"	"	"	IIaO·E	B	Runaway *	"smog"	Fine
							"				
200/184	1-2"	7.29	B6I	BC	830/1.68	BS	IIaO·E	A	Runaway *	Cloud	Fine
200/131	2-3"	8.01	O6.5II.e	"	"	"	"	B	Runaway *	T=15°F gusty	s/wk
200/180	2	7.18	B2II	"	"	"	"	A	Runaway *	T=13°F F=515	Fine
40/100		4.9	F2III	"	1200/-.025	"	"	B	Ly	T=13°F F=512	Fine
200/250	2-3	6.9	A0	"	"	"	"	A	Ly		Fine
				"	"	"	IIaO	B	T=12°F	F=512	
										all plates have dark edges. Why? ? Tm	

199

Tues./Wed.

Date Feb. 16/17, 1982 Observers Gis-Tm/Tm

8m 0d Emulsion Batches: IIaO: E ...1-331...-1202

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46654	HD 29866	04h 37.3m	+40° 36'	18:33	20:04	0h 51m W	+40° 44'	Fe/-	7-7
46654T	Spec Calib Str	46654-		15 min @ 15V		D4 3900	D3 +390	D2 4400	
46655	HD 45995	06 25.6	+11 19	23:43	01:18	4h 19m W	+11 16	Fe/-	7-7-7
46656	HD 89449	10 14.3	+19 59	01:29	02 40	~2 0 W	+19 34	Fe/-	7-7-7
46657	HD 137909	15 23.7	+29 27	02 55	03 18	2 39 E	+29 09	Fe/-	14-14
46658	HD 139892	15 35.6	+36 58	03 28	04 04	2 05 E	+	"	14-14
46659	"	"	"	04 05	04 43	1 26 E	+	"	14-14
46660	HD 118316	13 30.3	+37 42	04 49	05 07	2 03 W	+37 16	"	14-14
46661	HD 161096	17 38.5	+4 37	06 14	06 25	1 46 E		"	14-14
46662F	Focus Test					"	"	Fe/-	24-24

Spectr. Temp. +39°F ..... Dome Temp./Hum. +32°F/72% Transparency Conditions hazy - cloudy - Clearing by 3 Am 200

Focus ... 506 .....

Spectr. Temp. +25°F ..... Dome Temp./Hum. +12°F/80% .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
200/99	3"	5.87	B8IIIn	B.C.	830/.68	BS	IIaO-E	A	Runaway *	cloud	slwk
							"				
200/93	4"	6.04	B3Vnne	BC	830/.68	BS	"	A	Runaway *	cloud again	slwk
200/200	4"	5.3	F6III	"	"	"	"	A	Std Velocity	some cirrus Set 507	Fine
40/70	5"	3.93	F0p	"	1200/.1025	"	"	B	kk prog	T=31°F Set 507	Fine
200/250	4"	5.1	B7V	"	"	"	"	A	Lg prog	Br+comp separation difficult gusty SE	Fine
200/260	4"	"	"	"	"	"	"	B	"		fine
80/200	5"	4.9	F2IV	"	"	"	"	A	"	T=26°F Set 509 cloud	Fine
40/60	5"	3.9	K2III	"	"	"	"	B	std vel		v slwk
				"	"	"	"	A		T= Set 509	
				Focus	Test	Exposure					

201

Date 23/24 Feb 1982 Tues/Wed. Observers Blu-Ri

Emulsion Batches:
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.....
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
4662F	Focus Test					01 30E	-9°47'	Fe/-	30/30
4662	HD33323	05h04m4	-8°53'	18:27			-9°47'	Fe/-	13

Spectr. Te
Focus...
Spectr. Te
Exc Mir

Spectr. Temp. 380F ..... Dome Temp./Hum. 29°F/71% ..... Transparency Conditions Patchy cirrus and poor cirrus - shadows.

Focus ..... 506 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.68	65	IIIa-J	A			
20/		407	B-IIIa	BC	830/.68	65	IIIa-J	B	Bc	Cloud	

203 Wed-Thurs

Date 24-25 Feb/82 Observers Crw-Tm

Emulsion Batches:
8" IIa-O-E 12081 -12022

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46663	HD 112300 (δ VIR)	$12^h 50.^m 6$	+3°56′	01:00	01:19	01 33E	+3 29	Fe/	10-10
46664	HD 101153 (ω VIR)	$11^h 33.^m 3$	+8°41′	01:26	02:53	01 27W	+8 12	"	10-10
46664T	Spot Calc. for	46663-66			15 min @ 15V	D4 3400	D3 4300	D2 4810	
46665	HD 114961 (SW VIR)	$13^h 08.^m 9$	−2°17′	03:03	05:10	$1^h 58^m$ W	−2 42	Fe/—	7-7
46666	HD 187796 (χ CYG)	$19^h 46.^m 7$	+32°40′	05:15	06:15	$3^h 37^m$ E	+32°52′	Fe/—	10-10
46666F1	Focus Test							Fe/—	15-15
46666F2	Focus Test of Hollow cathode					$0^h 00^m$	+7°00′	Fe Ne/w.6	15-15

Spectr. Temp. ...23°F..... Dome Temp./Hum +9°F/73%. Transparency Conditions ..mostly clear..... 209

Focus .....512.....

Spectr. Temp. +13°F..... Dome Temp./Hum +4°F/75%

good Aurora
super by 03 hrs

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/50	>5"	4.95	M3 II	BC	830/.68	150/.3	II-O-E	A	Cyg-M13	EXP = 19m	v sl str
200/230	"	6.95	M4-+.5 III	"	"	"	"	B	"	EXP = 87m	v sl str
							"			focus: 513 20°F	
200/200	3"-4"	7.5	M7 III	"	830/.68	150/.3	"	A	Cyg-M13	EXP = 127m	good
200/210	"	6.7	S7-S10	"	"	"	"	B	"	EXP = 60m	good
				"	"	150/1.0	"	A		T+13°F So+513	ok
				"	"	"	"	B		" "	exp ok uneven

206 Thurs./Fri.

Date 25-26 February, 1982 Observers Gus - Jn

8m 68° Emulsion Batches: IIaO:E 12081 - 23022

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46667	HD 29866	4h 37.3m	+40° 36'	18:28	18:55	0h 18m W	+45° 45'	Fe/—	10-10
46668	HD 30650	4 44.4	+43 24	18:58	20:57	2 12 W	+43 33	Fe/—	7-7-7
46669	HD 37737	5 35.7	+36 09	21:00	23:58	4 23 W	+36 12	Fe/—	7-7-7
46669T	Spot Calc.	for 46667	−70	15 min @ 15V		D4 3900	D3 4300	D4 4810	
46670	HD88021/2	10 03.8	+20 49	0:03	2:30	2 27 W	+20 25	Fe/—	7-7-7
46670F	Focus Test					2 41 W	+20 25	Fe/—	17-17
A6670T	Tungsten exposure G8	100"							

Spectr. Temp. +20°F ..... Dome Temp./Hum. +16°F / 65% Transparency Conditions Fine to hazy ... partly cloudy

Focus .. 5.12 .....

Fine Aurora after 1 AM

Spectr. Temp. ..... Dome Temp./Hum. ...../.....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/36	2"	5.87	B8 II n	BC	830/.68	BS	IIaOe	A	Runaway *		fair
xx/175		7.47	B6 II	"	"	"	"	B	Runaway *	Cloud	v sl str
100/267	3"	8.31	O9.5 III n	"	"	"	"	A	Runaway *	T=19°F	good
							"				
290/235	3-2"	7.30	900+ A2	BC	830/.68	BS	IIaO-e	B	VB-Bln	T=15° some cloud F=515	v sl str
				"	"	"	IIaO-e	A		T=+14°F "	v sl red

207 Fri. / Sat

Date 26-27 February, 1982 Observers ... Gies - Tn

8m 68 Emulsion Batches: IIaO: E ... 12081 - 23022

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46671	HD 43112	6h 09.5m	+13° 53'	19:57	20:20	0m 15m W	+13° 52'	Fe/—	10-10
46672	HD 39680	5 49.0	+13 49	20:26	22:30	2 45 W	+13 50	Fe/—	7-7-7
46672T	Spot Cal'n for	46671 - 73		15 min @	15V	D4 3900	D3 4300	D2 4810	
46673	HD 139892	15 35.6	+36 58	2:24	3:27	2 02 E	+36 42	Fe/—	10-10
	~~HD 137909~~	~~15 23.7~~	~~+29 27~~	~~3:34~~		E	~~+29 11~~	~~Fe/—~~	~~10-~~
46673F	Focus Test					1 39 E	+29 11	Fe/—	20-20

Spectr. Temp. +25°F Dome Temp./Hum. 20°F / 81% Transparency Conditions hazy . . . clouds . . . 908

Focus 511

Spectr. Temp. . . . . Dome Temp./Hum. 17 °F / 95 %

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
200/175	2"	5.67	B1V	BC	830/.68	BS	IIaO-E	A	Runaway*		v slow
400/186	2"	8.01	06.5V	"	"	"	"	B	Runaway*	cloud	good
							"				
40/53	1-2"	5.1	B7II	BC	1200/-.025	BS	"	A	Ly	T=23°F cloud F=509	fine
200/	2"	3.93	F0p	"	"	"	"	A	KK		
				BC	1200/-.02	BS	IIaO-E	A	Se+509	T=23°F F=509	
									IF no shift it may be a (Comp)-Comp-Comp Tap		

29 II-1 Sat/Sun

Date Feb 27/28 Observers Km-TL/KK-TL

10 35

Emulsion Batches:

8" 68° IIIa-E 12081-26022

4" 68° IIIa-E 09061-15017 22 30

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46674	HD 104071=TW	2h 37.6	+65° 18'	18:49	21 47	5 16W		Fe/—	7-7-7
46674T	Spot Calc for 46674-85			15m @ 15V		D4 3900	D3 4300	D3 4810	
46675	HD 8190=χ UMi	1 22.6	+65 46	21:35	21 58	6 08W	+59 1?	Fe/—	10-10
46676	HD 8190=χ UMi	"	"	22:01	22 04	6 14W	"	Fe/—	10-10
46677	HD 99028=TX UMi	6 19.8	+07 08	22 12	00 05	3 55W	+7 06	Fe/—	7-7-7
46678	HD 99028	11 18.7	+11 5'	0013	00 23	0 48E		Fe/—	4-14
46679	HD 103095	11 47.2	+35 26	0027	0202	1 23W	+	Fe/	10-10-10
46680	HD 122742	13 58.6	+11 16	0206	0352	0 06E		"	10-10
46681	HD 121370	13 49.9	+18 54	03 56	03 59	0 19W		"	14-14
46682	HD 124752 (HD 124497)	14 11.1	+19 42	04 04	04 04	0 03W		"	4-10
46683	HD 137909	15 23.7	+32 27	0409	0418	0 55E		"	14-14
46684	HD 130948	14 45.8	+24 20	0422	0503	0 22W		"	10-10-14
46685	HD 159561	17 30.3	+12 38	0507	0512	2 08E		"	20-20
46686T	Spot Calc for 46685-87			15m @ D4		3900 17.5V	4300 15V	4810 15V	
46686	HD 159561	17 30.3	+12 38	0514	0519	2 00E		Fe/Ne 4v6	20-20

Spectr. Temp. 30° F ..... Dome Temp./Hum 27°F / 68% Transparency Conditions Fog - hazy 210

Focus ..... 509 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... / .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/210	<1"	8.1	B5 G	BC	830/.68	B5	IIaE	A	Cyn/Evans	* Reversed (Cyn to Evans, Evans to Cyn)	good
							"				
40/40	1"	2.5	F7 b	BC	830/.68	B5	"	B	Cyn/Evans		fine
40/60	1"	"	"	"	"	"	"	A	Cyn/Evans		v sl str
40/40	1"	6.5	F7 b	"	"	"	"	B	Cyn/Evans	27°F f=510	sl strong
40/65		4.3	F2 IV	"	1200/.25	"	"	A	Asm Sp/KK	25°F f=509	fine
40/310	2"	7.2	G2 V	"	"	"	"	B	Asm Sp/KK	F=510	fine
40/100		6.9	G8 V	"	"	"	"	A	"	some cloud streaks	fine
40/50		2.8	G0	"	"	"	"	"	"		fine
40/45		1.3	K2 III	"	"	"	"	A	Std Vel		fine
40/60		3.9	F0p	"	"	"	"	B	Asm Sp/KK		fine
40/65		6.5	dG2	"	"	"	"	A	Asm Sp/KK		fine
40/166		2.2	A5 III	"	"	"	IIIaJ eb	B	"		fine
						"	"				fine
40/174		"	"	"	"	"	"	A	"	comp wk &	good uneven

211 #2

Date '82 Feb 28 cont Observers KK-Jn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
46687	HD 182640	19 20.5	+ 2 55	0525	0544	3 26 E	+	Fe/–	20-25 -20
46687F	Focus Test					0		Fe/–	20-25

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ... clear ..... 212 ....

Focus ... 510 .....

Spectr. Temp. ... 21°F ..... Dome Temp./Hum +13°F / 100% .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/182	2"	3.68	F0 IV	BC	1200/-.025	BS	IIIaJ	B	AmSp/UK	frost	fine
				"	"	"	IIaO	A	Set 510	T218	sl red

213 Sun./Mon.

Date 28 Feb/1 March, 1982 Observers Gis - Tn

8m 68° Emulsion Batches: Small box IIaO - E 12021 - 25 - 2

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp	Spectr. T / Focus / Spectr. / Exp. Min
46688F	Focus Test					0h 06m W	+7° 45'	Fe/—	20-20	
46688	HD 29866	4h 37.3	+40° 36'	18:30	19:05	0 39W	+40 45	Fe/—	7-7	4/3
46689	HD 37657	5 35.1	+43 00	19:08	20:46	1 31 W	+43 03	Fe/—	7-7	20/3
46690	HD 45995	6 25.6	+11 19	20:50	21 53	1 40W	+11 16	Fe/—	7-7	5/1
46690T	Spot Sat for	46688-91		15min @ 15V		D4 3400	D3 4300	D2 4810		
46691	HD 44172	6 15.3	+14 45	21 58	23:20	3 17W	+14 43	Fe/—	7-7	4/15

Spectr. Temp. +26°F Dome Temp./Hum. +20°F / 67% Transparency Conditions getting hazy 214

Focus 5.10

Spectr. Temp. +21°F Dome Temp./Hum. +14°F / 93%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.68	BS	IIaO-E=	A			sl smoky
40/35	2"	587	B8IIIn	"	"	"	"	B	Runaway*		fine
400/350	3"	7.22	B3Vne	"	"	"	"	A	Runaway*		fine
300/180	3"	6.04	B2Ivne	"	"	"	"	B	Runaway*	T= 24°F F=51%	sl sm
							"				
400/156	2"	7.29	B6V	BC	830/68	BS	"	A	Runaway*	Cloud	good

215

Mon-Tues

Date Mar. 1-2/82 Observers Ly-Tn

Emulsion Batches: Small box
IIaO-E 1892 — 28022

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46692	HD47129	6 32.0	+6 13	23:05	00:24	4 10W	+06 09	F-/-	10-10-
46692T	Spot Calib. for 46692			15min @ 15V	D4 3400	D3 4300	D2 4810		
46693	HD118216	13 30.3	+37 42	00:30	01:40	1 30E	+37 16	Fe/-	10-10-
46693F	focus					"	"	Fe/-	20-20

Spectr. Temp. 30°F Dome Temp./Hum. 20°F/80% Transparency Conditions fine, thin cloud 216

Focus 507 Super aurora (red part)

Spectr. Temp. 27°F Dome Temp./Hum. 19°F/88% windy

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
200/200	3-4	6	08	BC	1200/1.015	35	IIaOe	A	MSB - Ly		
							"				
40/80	2-3	49	F2 IV	BC	1200/1.015	85	"	B	RSCVn - Ly	T=-28° set to 508	
				"	"	"	"	B		cloud after 60 mins	
										T=27°F	

217 Tues./Wed.

Date March 2/3, 1982 Observers Gis - Th

Emulsion Batches: Big Box
IIa-O-F 18012 - 28022

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46694F	Focus Test					0h 05m W	+23° 30′	Fe/—	20-20
46694	HD 24912	03h 52.5m	+35° 30′	18:35	18:49	1 15W	+35 44	Fe/—	10-10
46695	HD 34078	05 09.7	+34 12	18:55	20:24	1 31W	+34 18	Fe/—	10/6
46696	HD 43112	06 09.5	+13 53	20:28	21:29	1 40W	+13 52	Fe/—	6-10
46697	HD 45995	06 25.6	+11 19	21:33	22:34	2 29W	+11 16	Fe/—	10-10
46697T	Spot Cals for	46694-99		15 min	@ 15V	D4 3900	D3 4300	D2 4210	
46698	HD 97991	11h 11.1m	-2° 55′	22:40	1:56	1h 07m W	-3° 22′	Fe/—	7-7
46699	HD 149363	16 29.1	-5 56	2:08	6:21	0 14W	-6 06	Fe/—	7-7

Spectr. Temp. +27°F ..... Dome Temp./Hum. +16°F / 70% Transparency Conditions Hazy – cloudy – Final

Focus 510 .....

Spectr. Temp. +13°F ..... Dome Temp./Hum. +3°F / 82%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.68	BS	IIaO	B			
40/35	2-4"	4.04	07	"	"	"	IIaO-E	B	Runaway *		
200/180	4"	6.18	095I	"	"	"	"	B	Runaway *	set 512	
200/180	3"	5.67	BIII	"	"	"	"	A	Runaway *		
200/180	3-4"	604	B2V	"	"	"	"	B	"		
							"				
200/180	3-4"	7.18	B2I	BC	830/.68	BS	IIaO-E	A	Runaway *	T = 21°F	
400/260	4"	7.76	B0.5V	"	"	"	"	B	Runaway *	T = 17°F F = 514	

219 Wed/Thurs

Date Mar 3/4 82 Observers Ly - Tm

8" f/8 Emulsion Batches: Big Box
IIaO.E 18012 22022
IIIaF.cb 33 302

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46700	HD37043	05 30.5	-05 59	18:38	18-42	0 24 E	-5 55	Fe/-	14-14
46701	"	"	"	18:44	18 48	0 18 E	"	"	14-14
46702	HD47129	06 32.0	+6 13	18 58	20 01	0 03 E	+6 10	"	14-14
46703	HD44701	06 18.0	-03 14	20 07	22 02	2 09 W	-3 16	"	10-10-10
46703T	Spot Cal.	for 46700-			15m @ 15V	D4 3900	D3 4300	*	
46704	HD28226	04 22.1	+21 24	22 10	22 54	4 56 W	+21 35	Fe/-	10-20
46705	HD65041	07 51.7	+43 47	22 59	02 33	5 05 W	+43 30	Fe/-	10-20
46706	HD118216	13 30.3	+37 42	02 40	03 23	0 19 W	+37 17	"	10-10
46707	HD137892	15 35.6	+36 58	03 30	03 58	1 10 E	+36 40	"	15-15
46708	HD161096	17 38.5	04 37	04 06	04 27	2 44 E	+4 35	"	15-15
46708F	focus					0	+4 35	"	24-24
46708T	Spot cal.	7v 15m	Ha	IIIaF baked	3 1/4 h	60°C			

Spectr. Temp. ...19°F..... Dome Temp./Hum. 13°F/58% Transparency Conditions ..good - hazy - ~~D~~ cloud 220

Focus ...510.....

Spectr. Temp. ..... Dome Temp./Hum. +4°F/80%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/60	4	2.8	O9III	Bc	1200/.025	B5	IIaO e	A	MKB-Ly		
40/53	4	"	"	"	"	"	"	B	"		
200/260	4"	6.1	O8	"	"	"	"	A	"		
200/250	4"	6.8	B5	"	"	"	"	B	MSB-Ly	set 511 +15°F	
							"			* uncertain comparison	
200/100	3"	6.0	Am	Bc	1200/.025	B5	IIaO e	A	Hyades-Ly		
200/240	3"-2"	6.9	B2V	"	"	"	"	B	Sph.-Ly	thin cloud	
40/103	3	4.9	F2IV	"	"	"	"	A	RSCVn-Ly	+13°F 511	
40/49	3-4	5.0	B7V	"	"	"	"	B	MSB-Ly	cloud	
40/34	4	3.9	K2III	"	"	"	"	A	std set	heavy cloud	
				"	"	"	"	B	set 512	T=+12°F	cat vs Red

2021

Fri. / Sat.

Date March 5/6, 1982. Observers ...Gries: Tn.....

Emulsion Batches:
IIaO: E...18912...: 03032
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46709	HD 24912	$3^h 52.^m5$	+35° 30'	20:21	20:26	$3^h 05^m$ W	+35° 44'	Fe/—	10-1
46710	HD 30614	4 44.1	+66 10	20:30	20:36	2 20 W	+66 18	Fe/—	10-1
46711	HD 43112	6 09.5	+13 53	20:41	21:00	1 22W	+13 52	Fe/—	10-1
46712	HD 52533	6 56.5	-2 59	21:04	22:59	2 35W	-3 06	Fe/—	7-7-
46712T	Spot Sat for 46709	-12		15min @ 15V		D4 3900	D3 4300	D3 4810	
46712F	Focus test					2 35W	-3 06	Fe/—	27-2

Spectr. Temp. +29°F ..... Dome Temp./Hum. +21°F/84% Transparency Conditions ..... 2&2

Focus 50.9 .....

Spectr. Temp. ..... Dome Temp./Hum. +16°F/90%

Comparison Type/Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe - 1		40/35	1-2"	4.04	O7	BC	830/.68	BS	IIaO·E	A	Runaway *		Fe OK Fine
Fe - 1		40/38		4.33	O9.5 Ia	"	"	"	"	B	Runaway *		Fe OK Fine
Fe - 1		40/35		5.67	B1 II	"	"	"	"	A	Runaway *		Fe v.s.l.+ Fine
Fe - 1		400/160	2"	7.61	O9 II	"	"	"	"	B	Runaway *	T=28°F Cloud F=5/10	comp str s/wk
Fe - 2						BC	830/.68	BS	IIaO	A	T=	2515 set 5/10	v.s/blue

3002

223

Sunlman

Date Mar. 7-8, 1982 Observers Giles-Tn/Tn

Emulsion Batches:
IIa-O-E 18012 — 03032
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46713	HD 24912	3h 52.5m	+35° 30′	18:53	19:05	1 52W	+35° 45′	Fe/—	10-5
46714	HD 34078	5 09.7	+34 12	19:32	20:39	2 09W	+34 18	wr 6 Fe Ne	5-5
46714T	Spot Calib	for 46713-19			15 min @ 15	LV 3900	D3 4200	D7 4600	
46715	HD 66141	7h 57.1m	+2° 36′	20:44	21:01	0h 15m E	+2° 23′	w. i Fe/Ne	≈8-4
46715T	Focus Test					0h 11m E	+2° 23′	w. i Fe Ne	13-10
46716	HD 37657	5h 35.1m	+43 00′	~21:30	0:05	5 08W	+43 [illegible]	w. i Fe Ne	5-5
46717	HD 47991	11 11.1	−2 55	0:10	3 20	2 51W	−3 22	w. i Fe Ne	6-3
46718	HD 137909	15 23.7	+29 27	3:32	3 45	0 56E		"	7-7
46719	HD 157482	17 18.5	+40 09	3:50	5 55	0 40E	+39 59	"	7-7

Spectr. Temp. +31°F ..... Dome Temp./Hum. 21°F / 7.0%. Transparency Conditions ... Fine - hazy ..... 224 ...

Focus ..... 510 .....

Spectr. Temp. +15°F ..... Dome Temp./Hum 5°F / 86%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/35	2.3	4.04	07	BC	831.68	BS	II-J-E	A	Runaway *	* Fe Arc problem	Fe vwk Fine
300/175	3"	6.18	09.5V	"	"	"	"	B	Runaway *		comp of unknown Fine
							"				
40/14	2-3"	5.5	K2III	BC	830.62	BS	"	A	Sh. Velocity	T=27½°F	Fine
				"	"	"	"	A		T=27°F Set 510	OK
200/140	3-4"	7.22	B3V	"	"	"	"	B	Runaway *	gusty	Fine
200/140	4-5"	7.18	B2V	"	"	"	"	A	"	T=20° Set 513	Fine
40/63	4"	393	F0p	"	Dup-025	"	"	B	Hgh Sp Ast	T=17°F Set 512	comp vwk Fine
100/310	4-5"	6.22	dF8	"	"	"	"	A	Spectroscopy		comp vwk Fine

225

Date 7/10 MAY 1982 Observers Liu-Tu

Emulsion Batches: IIaO-E 18012 – 03032

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46720	HD 83021/2	10h 02m 8	+26° 49'	21:17	00:37	01.22W	+26°27	T=1-	T=5-
46720T ✓	Spot Calib for 46720-23			15min @	15V 3900 124	4300 03	4810 07		
46721	HD118216	13 30.3	+37 42	00:44	01 33	01 08 E	+37°18'	T=1-	T=12-12
46722	HD 137909	15 23.7	+29 27	01 36	01 59	02 36 E	+29 09	"	12-12
46723	HD 139892	15 35.6	+36 58	02 04	02 26	02 20 E	+36 41	"	12-12
46723F	Focus					"	"	"	22-22

Spectr. Temp. 27° F ..... Dome Temp./Hum. 17°F / 99% .... Transparency Conditions ... Poor - Haze - cloudy ...

Focus . 510 .....

Spectr. Temp. + 21 ... °F ..... Dome Temp./Hum. +13°F / 100% +

226

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1-0/602	3"	7.20	365 + F2	BC	330/65	33	IIa-0E	A	V13-B1a		
							IIa-0E				
1-0/100	3-1"	4.9	F-II	BC	330/65	33	IIa-0E	B	33-Ly	cloud -3°F F=1379	
1-270/70	2"	3.93	F0p	"	"	"	"	A	Asw Sp Ast	thick cloud	
1-270/-70	2"	5.1	B7V	"	"	"	"	B	Ly prog	Frosty Fog	
				"	"	"	"	A	Sp1509	T=21°F	

227 Sun-Mon

Date .. Mar. 14-15/82 Observers .... Crw.—Ri.....

Emulsion Batches: IIIa-E 12081 ... 07032 ...

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
46724	HD 84748 (R 40)	$9^h42.^m2$	+11°54′	19:56	23:08	0^h34^m W	+11°30′	Fe/—	7–7	4c/500
						0 04	0 23	③ 0 2		
46724F	spot cal fr plate	46724-25			15 MIN @ 1500 ATS	3900	4300	4910		
46725	(V Boo)	$14^h25.^m7$	+39°18′	23:16	00:17	3^h00^m W	+38°56	Fe/—	7–14	4c/21
46725F	Fountain							Fe/—	15–1	

Spectr. Ten
Focus ....
Spectr. Ten

Spectr. Temp. ...42°F..... Dome Temp./Hum. ...32°/62% Transparency Conditions ...PARTIALLY CLEAR.....
(HAZY at SUNSET)

Focus .....505.....

Spectr. Temp. ...37°F..... Dome Temp./Hum. ...30°/65%

228

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
100/500	2"	7.8	M6e-M6e	BC	830/.68	150/.3	IIaO-E	A	Cnv-MIRAS	EXP=192m	
							IIaD-E				
100/21		>8.0	M6e	"	"	"		B		T=37°F, F=507	blank
						150/1.0	IIaD-E	A			

229

MON-TUES

Date MAR 15-16 1982 Observers Ly - Ri

Emulsion Batches:

8" 68 IIaD-E 12081 - 07032

1" 68 098Z-E 20.081 - 07432 26 155

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr
46726	HD47129	6 32.0	+6 13	21:07	23:23	4 03W	+06°12'	Fe/-	10-10	200/250
46726T ✓	optical fix plate	46726 27, 30-31			15 MIN @ 15 Volts		① D4 3900 ② D3 4300	③ D2 4910		
46727	HD81797	9 22.7	-8 14	23:33	23:43	1 32W	-08 33	Fe/-	15-15	50/60
46728	"	"	"	23:50	23:56	1 46W	"	Fe/- Ne/-	7 7 10 10	40/20
46729	"	"	"	23:58	00:28	2 19W	"	"	7-7 10-10	24/30
46729T ✓	optical fix plate	46728-	29		15 min @	① D3 150 4810	② D1 70 Hz	③ D2 70 5450		
46729F	focus					220W	-08 33	Fe/-	25-25	
46730	HD143313	15 54.6	+25 52	02:00	05:29	0 49W	+25°38	Fe/-	7-7	100/125
46731	HD188439	19 50.1	+47 33	05:34	06:00	2 35E	+47°45	Fe/-	7-7	50/60
46731F	Focus test							Fe/-	22-22	

Spectr. Temp. 37°F Dome Temp./Hum. 29°F/81% Transparency Conditions ... fair to poor ... 2.30.
Focus 505 to sun after 2 AM.
Spectr. Temp. ... Dome Temp./Hum. 26F/81%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
100/250	4	6.1	08	BC	1200/.025	BS	IIaOe	A	MSB - Ly		good
							IIaO-E				
20/60	3-4	2 2	K3II	Bc	1200/.025	BS	IIaOe	B	Std Vel	T=36°F F=505	fine
20/20	"	"	"	"	1200/.7	RS	098025	A	"	"	
20/12	"	"	"	"	"	2.5	098-02F	B	"	T=35°F F=508 cloud dowiowly !!	
							098-02E				
				BC	1200/.7	RS	098-02e	A		T=34°F	
100/125	3	9.5	K5	Bc	830/68	BS	IIaOe	A	H-K-Ly	T=34°F F=506	v slwk
20/60	3	6.2	B0.5III	"	"	"	"	B	Runaway *	T=32°F	
				BC.	830/.68	BS	IIaO-F	A		F=508	

31

WED THURS

Date MAR 17-18 1982 Observers R./wh

Emulsion Batches:

$\Sigma^{m}68^{\circ}$ IIaO-E 12081-07032

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46732F	FOCUS TEST							Fe/-	22-22
46732	HD 29866	04 37.3	+40° 36′	18:55	$19^{h}16^{m}$	$1^{h}57$ W.	+40°47	Fe/-	7-7
46733	HD 43112	06 09 5	+13° 53′	20 :18	20:39	$1^{h}48$W	+13°53	Fe/-	7-77
46734	HD 52533	06 56 5	-02° 59′	20:47	23:08	$03^{h}32$ W	-03°03′	Fe/-	7-7
46738T ✓	spectral for plate	46732-35			15 MIN @ 15 VOLTS		D4 3900	03 4300	02 4810
46735	HD97491	11 11.1	-02° 55′	23:15	00.22	$00^{h}31$W	-03°20′	Fe/-	7-77
46735F	FOCUS TEST							Fe/-	22-22

Spectr. Temp. 370F ..... Dome Temp./Hum. 340F 84% Transparency Conditions ... CLOUDS after MIDNIGHT. excellent before that

Focus ..... 507 .....

Spectr. Temp. ..... Dome Temp./Hum. 32°F 99% 40/33 232

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C.	830/.68	B.S	IIaO-E	A			
40/35	1-2	5.87	B8IV$_2$	B.C.	830/.68	B.S.	IIaO-E	B	RUNWAY*	TESTING CLOCK DRIVE	
40/35	1-2	5.67	B1V	B.C.	830/.68	B.S.	IIaO-E	A	"	BOOKEN-½" MISSING	fine (uneven)
200/140	2-3	7.61	09V	B.C.	830/.68	B.S.	IIaO-E	B	"	½hr TESTING TELESCOPE LIMIT	
							IIaO-E				
200/91	2	7.18	B0V	B.C.	830/.68	B.S.	IIaO-E	A	RUNWAY*	38°F CLOUDED IN 506	
				B.C.	830/.68	B.S.	IIaO-E	B		37½°F 506	

233

Date ... Mar. 19-20/82 Observers ... Cow-Ri

Emulsion Batches:
IIaO-E 12081-17032
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46736	HD 117833 (5 Vir)	$13^h 27^m.8$	$-6° 40' 9$	23:02	2:38	$0^h 38^m$ W	$-7° 05'$	Fe/–	7.7
						① ~~24~~	② D1	③ D2	
46736T	SPOT CALN' FOR PLATES 46736 –				15 MIN @ 15 VOLTS	3900	4300	4810	
46736F	Focus test							Fe/–	K-5

Spectr. Ter
Focus....
Spectr. Ter
Exp. Mir

Spectr. Temp. ....40°F..... Dome Temp./Hum. ...33°/...99% Transparency Conditions hazy, thin clouds.....

Focus .....506.....

Spectr. Temp. ....38°F..... Dome Temp./Hum. .....32°/...100%

234

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/284	3"	8.5	MGe -MTe	BC	830/.68	150/.3	IIaO-E	A	CW-MIRAS	EXP = 216m	OK sl wk
							IIIa-D-E				
				"	"	150/1.0	"	B		38°F 506	sl Blue ~~OK~~

235

Date March 21/21 Sat/Sun 1982 Observers BK-Ri

Emulsion Batches: ~~IIaD-E~~ 12081-17032 26180

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46737	HD 74874	8 41 5	+6 47	22 36	22 46	1 35W	+6 30	Fe/-	7-7-7
46738	HD 87822	10 02 5	+32 06	22 51	23 58	1 25W	+31 42	Fe/-	7-7-7
46738T	SPOT CAL FOR PLATES 46737-39				15MIN@	① D4 15SECS 3900	② D3 4800	③ D2 4810	
46739	HD 101177	11 33 5	+45 40	0 01	01 46	1 44W	+45 15	Fe/-	7-7-7
46739F	FOCUS TEST							Fe/-	27-22
	SUN MARCH 21	1982	BK-Ri						
46739F.	FOCUS TEST							Ne/-	10-10
T2	"							Ne/-	10-10
T3	comparison							Ne/-	10
T4	comparison							Ne Fe/	5
46739T5	Spot cal.								

Spectr. Temp. 40°F Dome Temp./Hum. 33°F 91% Transparency Conditions hazy

Focus 506

Spectr. Temp. Dome Temp./Hum. 32°F 90% 236

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
20/30	3	3·98	F8	B.C.	830/.68	B.S.	IIa-E	A	Waterloo		Fine
30/120	3	6·60	F5	B.C.	830/.68	B.S.	IIa-E	B	"		Fine
							IIa-E				
200/178		6·10	G0	B.C.	830/.68	BS	IIa-E	A	-	T 390°F Clouds F 506	Fine
				-	-	-	IIa-E	B		T 38°F F 506	Cent/sl Blue
				B.C./T.	150/.5	150/.5	IIaD	1			
				"	"	"	"	2		TURNED W. SCREW ONE TURN IN	
				"	"	"	"	3			
				"	"	"	"	4			
							2415				

257 2nd half of Mar 21

Date ..MAR 22 1982. Observers ....Ri.....

Emulsion Batches:
JTA0-E 12081-17032
.....
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46740	HD 149363	16 29.1	-05°56'	01.54	05:45	0045W	-06°06	Fe/-	7-7-7
46740T ✓	SPOT CALN' FOR PLATES		46740-		15MIN@15VOLTS	① D1 3900	② D3 4300 ③ D2 4B10		
46740F	FOCUS TEST							Fe/-	22-22

Spectr. Ter
Focus....
Spectr. Ter

Exp Mtr

Spectr. Temp. 37.5 F Dome Temp./Hum. 32°F 99% Transparency Conditions ~~Some clouds around~~ @ 9:00AM THEN CLEAR AGAIN

Focus 507

Spectr. Temp. 36°F Dome Temp./Hum. 30°F 97%

238

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
300/290	3-4	7.76	B0.5V	B.C.	830/.68	B.S.	IIaO-E	A	RUNWAY		S/N K
							IIaO-E			DID 390 a201 BY MISTAKE	
				B.C.	830/.68	B.S.	IIaO-E	B		T = 36°F F 507	cent V+I Blue

239.

Date MON-TUES MAR. 22-23. Observers ..Ly.-Ri.....

Emulsion Batches:
IIaO-E 12081-22032
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46741F	FOCUS TEST							Fe/-	25-25
46741	HD36486	05 26.9	-00 22	19.10	19:13	01 24W	-00 18	Fe/-	15-15
46742	"	"	"	19:15	19:17	01 28W	"	Fe/-	15-15
46743	HD36695	05 28.5 28.1	-01 14	19:23	19:55	02 05W	-01 11	Fe/-	15-15
46744	HD37043	05 30.5	-05 59	19.58	20:03	02 12W	-05 55	Fe/-	15-15
46745	"	"	"	20:05	20:09	02 16W	"	Fe/-	15-15
46746	HD 28911	04 28.2	+13 02	20:13	21:25	04 35W	+13°11	Fe/-	10-20
46746T	SPOT CALN' FOR PLATES 46741-46752				15 MIN @ 15 VOLTS	① D4 3900	② D3 4300	③ D2 4910	
46747	HD118216	13 30.3	+37 42	21:32	22 17	03 35E	+37 16	Fe/-	15-15
46748	HD6 5041	07 51.7	+43°47	22:26	00 09	03 55W	+43 33	Fe/-	10-10
46749	HD118216	13:30.3	+37°42	00:15	00 56	00 54E	+37°15'	Fe/-	10-2
46750	HD143313	15 54.6	+25 52	01:04	04 22	00 09W	+25°38	Fe/-	7-7-7
46751	HD 182439	19 50.1	+47 33	04:28	05 03	03 05E	+47 46	Fe/-	7-7-
46751F	FOCUS TEST					"	"	Fe/-	22-22
46752	HD118216	13 30.3	+37 42	05:14	05:50	04 01E	+37°15'	Fe/-	15-
46752F	FOCUS TEST					"	"	Fe/-	25-25

Spectr. Temp. 41°F Dome Temp./Hum. 35°F 71% Transparency Conditions ... Good

Focus 503 240

Spectr. Temp. 33°F Dome Temp./Hum. 26°F 95% 40/30

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C.	1200/-.025	B.S.	IIaO-E	A		T=41.5°F F 503	OK?
20/25	3	2.2	09.5III	"	"	"	"	B	MsB-Ly		Fine
20/25	"	"	"	"	"	"	"	A	"		Fine
40/50	"	5.2	B1V	"	"	"	"	B	"		Fine
20/25	"	2.5	09III²	"	"	"	"	A	"	T=41°F	Fine
20/25	"	"	"	"	"	"	"	B	"		Fine
100/23	3"	7.0	F5V	"	"	"	"	A	Hyades-Ly		wk
90/110	3	5.0	F2IV	BC	1200/-.025	BS	IIaO-E	B	RSCVn-Ly		Fine
100/160	3	7.0	F2I	BC	1200/-.025	BS	IIaO-E	A	SgBn-Ly	T=38°F F=504	s/wk
90/110	3	5.0	F2V	BC	1200/-.025	BS	IIaO-E	B	RSCVn-Ly	T=36°F F=505	Fine
200/225	3	9.5	K5	"	830/.68	"	"	A	SgBn-Ly	T=35°F F=507	wk
60/70	3	6.2	B0.5III	"	"	"	"	B	Runaway +	T=33°F F=502	Fine
				"	"	"	"	A		T=33°F F=508	cont s/blke
90/94	3	5.0	F2V	B.C	1200/-.025	B.S.	IIaO-E	B	RSCVn-Ly	T=33°F F=506	Fine
				"	"	"	"	A		T=33°F F=506	OK

241

Date ..... Observers KK .....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46T02F1	Focus							Fe/—	20-20
T1	Sky					0h	+400	Fe/—	10-10
F2	Focus							Fe/—	20-20
T2	Sky							Fe/—	10-10
F3	Focus							Fe/—	20-20
T3	Sky							Fe/—	10.10
T4	Sky							Fe/—	20
FF									

Spectr. Ter
Focus....
Spectr. Ter

Exp Mtr.

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions .....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

242

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BL	1200/.025	BS	IIaO	A	Test	T=31° F=505	
00/150				"	"	"	"	B			
				"	830/.68	"	"	A		T=32° F=507	
20/20								B		508	
					400/.38			A		T=32° F=514	this slit not good!
20/15								B	DRUCE	CONCENTRIC PLATES!	
20/18					1800/.4			A		32° 508	
					830/.68	BS	IIaO	B	-.033	508	cent v blue
					"	"	"	A	-.037	506	cent v blue
					"	"	"	A	-.034	508	cent v blue

243 Tues./Wed

Date March 23/24, 1982. Observers Gies-Th.

Emulsion Batches: IIaO-E 12081 — 23032

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr.
46753F	Focus test (w/ Short Corrector plate)			+11 units above chart				Fe/—	20-20	
46753	HD 43112	6h09.5	+13° 53′	19:38	20:01	1h34m W	+13° 52′	Fe/—	7-7	7½
46754	HD 66141	7 57.1	+2 36	20:11	~20:30	~0 15 W	+2 23	Fe/—	7-7	6½/30
46754T	Spect Calib	for 46753-59			15min @ 15V	D4 3900	D3 4300	D2 4810		
46754F1	Focus test (without Corrector Plate)					1h00m E	+2 35	Fe/—	25 25	
46754F2	Focus test					0h53m E	+2 35	Fe/—	25-25	
46754F3	Focus test					0h48m E	+2 35	Fe/—	25-25	
46755	HD 97991	11h11.1	-2° 55′	21:51	00:48	1h21m W	-3° 22′	Fe/—	9-9-6	6½/30
46755F1	Focus test					1h30m W	-3° 22′	Fe/—	16-16	
46755F2	Focus test					1h35m W	-3° 22′	Fe/—	16-16	
46755F3	Focus test					1h45m W	-3° 22′	Fe/—	16-16	
46756	HD 115521	13h12.6	+6° 00′	01:19	01:26	0h08m W	+5° 34′	Fe/—	9-9	6½/50
46757	HD 115521	13h12.6	+6° 00′	01:45	02:10	0h42m W	+5° 34′	Fe/—	9-9	6½/50
46757F1	Focus test					0h46m W	+5° 34′	Fe/—	19-19	
46757F2	Focus test					0h42m W	+5° 34′	Fe/—	19-19	

Spectr. Temp. +40°F Dome Temp./Hum. +37°F / 76% Transparency Conditions Fine - Hazy - Cloudy

Focus 517 Tour - 50 people 244

Spectr. Temp. ____ Dome Temp./Hum. ____ / ____ Focus offset (without corrector plate)

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.68	BS	IIaO	A		Set 517 T=+40°F	-.015mm cont blue
70/70	1"	5.67	B1II	"	"	"	IIaO-E	A	Runaway *		
80/80		5.2	K2III	"	"	"	IIaO-E	B	Std. Velocity		
							"				
				BC	830/.68	BS	IIaO-E	A		T=40°F Set 526	cont s/Red
				"	"	150/1.0	"	B		Slicer Comparison Set 526	cont Red ba. 2 u. cont Red
				"	"	150/1.0	"	A		Field lens shift in plane. Set 531	
300/310	1"	7.18	B2V	"	"	150/0.5	"	A	Runaway *	Cloud Set 526	~~cont blue~~
						150/1.0	"	B		T=37½°F real est v. hazy Set 522	v. s/ blue
						150/1.0	"	B		Set 527	sl red
						BS	"	B		Set 524	
40/50	1"	5.0	M2Iab	BC	830/.68	BS	"	A	Std. Velocity		
40/80		"	"	"	1200/.025	"	"	A	"	T=37°F Set 524	
				"	"	"	"	B		Set 524	
				"	"	"	"	B		Set 528	

215

Date March 23/24, 1982 (cont) Observers Gries-Th

Emulsion Batches: Tri-E Sens-C

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
46758	HD 118216	$13^h 30^m 3$	$+37° 42$	2:23	3:12	$1^h 26^m W$	$+37° 17'$	Fe/—	11-11
46759	HD 137909	15 23.7	+29 27	3:15	3:24	$0^h 15^m E$	+29 11	Fe/—	11-1
59T1	Full aperture, no decker							Fe/ nr6	10
T2	"							"	"
T3	"							"	"
T4	"							"	"

Spectr. Temp
Focus
Spectr. Temp
Exp. Mtr.

pectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions 246

ocus .....

pectr. Temp. ..+35°F..... Dome Temp./Hum +29°F/84%

xp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
+0/110	1"	4.9	F2I	BC	1200/-.025	BS	IIaO-E	A	RSCVn-Ly	Set=524	
+0/80		3.93	F0p	"	"	"	"	B	KK · Asm.bin.		
				"	"	150μ	"	A		T 40° F 525	
				"	"	"	"	A		515	center de blem worst
				"	"	"	"	A		505	
				"	"	"	"	A		515 again	center de
									red ~ 530	blue ~ 510	

247

Date Apr 13-14/82 Thes Ward Observers Ly-Tn

Emulsion Batches:
IIaDe 12081 - 23037

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46760	HD118216	13 30.3	+37 42	20:06	21:02	03 22E	+37 15	Fe/-	9-1-9
46761	"	"	"	21:05	21 57	02 27E	"	Fe/-	9-9-9
46762	"	"	"	21:58	22 42	01 41E	"	"	9-9-9
46763	"	"	"	22 44	23 32	00 51 E	"	"	9-9-9
46763F	Spot Calc	for 46760-64			15 min e 5V	D4 3900	D3 4300	D2 48.0	
46764	HD124897			23 35	23 36	01 29E	+19 15	Fe/-	13-13
46764F	focus					01 27E	+19 15	Fe/-	19-19
	Tues Polar Axis alignment tests								

Spectr. Temp. 43°F Dome Temp./Hum. 37°F / 85% Transparency Conditions Fine

Focus 524

Spectr. Temp. ____ Dome Temp./Hum. 43°F / 90% no corrector plate. 248

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/110	3	49	F2IV	Bc	1200/.1	BS	IIaO e	A	ZSCUn-Ly		Fine
40/110		"	"	"	"	"	"	B	"		Fine
30/110		"	"	"	"	"	"	A	"		Fine
20/110		"	"	"	"	"	"	B	"		Fine
							"				fine
10/60	3.		K2III p	Bc	1200/.1	BS	IIaO e	A	Std Dd. -5.2	40°F Se/Sa 24 centered Red in Red	
								B.		focus OK →	OK in Blue

These plates don't look too bad except for Red Fe GR lines.

TG

249

Date Apr. 15/16 82 Thurs Fri Observers Ly - Tn

Emulsion Batches:
A-90-E 12.981 - 23.932
.....
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46765	HD118216	13 30.3	+37 42	20:13	21:07	3 10E	+37 16	Fe/-	9-8-10
46766	"	"	"	21:11	21 57	E	"	Fe/-	9-9 9
46767	"	"	"	21:58	22:42	1 33E	"	"	9-9-9
46768	"	"	"	22:44	23:30	0 45E	"	"	9-9-9
46769	"	"	"	23:32	00:31	0 14W	"	"	9-9-9
46770	focus					0 16W	"	"	19-19
	55 Cyg	1982 20 48.3	1982 +46 02.8	6 47E			+46 01		

Spectr. Temp. 52°F Dome Temp./Hum. 45°F / 72% Transparency Conditions Good

Focus 522

Spectr. Temp. ____ Dome Temp./Hum. 49.5 / 80? no corrector plate

250

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
90/112	2	5	F2 IV	BC	1200/.1	BS	IIaD e	A	RSC Vn-Ly		Fine
90/110	"	"	"	"	"	"	"	B	"	50°F	"
90/115	"	"	"	"	"	"	"	A	"		"
90/110	"	"	"	"	"	"	"	B	"	49.5°F	"
90/110	2-5	"	"	"	"	"	"	A	"	cirrus?	"
				"	"	"	"	B		49.5°F set 522	Ok

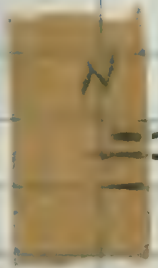
3-8 seeing variation caused image to oscillate ~±1 arcsec. Polar Axis Alignment Good

Note – no change in image posn between telescope posns 6 28E and 6 48E

– Image after start moved south (down on TV), then was back on slit at 5 25E

– Max travel of image south was ~2 arcsec

– Image settled approx 1-2 arcsec north of slit after watching for 94 mins.



251 / Tours did extensive planet gazing

Date Apr. 18-19 sun mon 82 Observers Ly-Th

Emulsion Batches:
IIa0-E 12081 - 15092

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
46770F	Focus Test					0 00	+5 00	Fe/-	14-14	
46770	HD 118216	13 30.3	+37 42	19:42	20 36	3 28 E	+37 15	Fe/-	9-9-9	4/1.2
46771	"	"	"	20 43	21 37	2 27 E		Fe/-	9-9-9	4/1.3
46772	"	"	"	21 40	22 29	1 35 E		Fe/-	9-9-9	4/1.4
46773T	Spot Chk for 46770-75				15min @ 15V	U4 3400	U3 4300	D7 48.0		
46773F	Focus Test					1.30E	+37 15	Fe/-	14-14	
46773	HD 118216	13 30.3	+37 42	23:41	00:35	0 30 W	+37 15	Fe/-	9-9-9	4/1.0
46774	"	"	"	00:35	01:40	1 37 W	"	Fe/-	9-9-9	4/1.0
46775	HD161096	17 38.5	+ 4 37	01:47	01:53	2 17 E	+4 33	Fe/-	13-13	4/1.2

Spectr. Temp. ...45°F..... Dome Temp./Hum. +43°F/69% Transparency Conditions ...good - steady.....

Focus .....524.....

Spectr. Temp. ...43°F..... Dome Temp./Hum. +37°F/85% No Corrector Rate

252

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	1200/.1	BS	IIaO-E	A			F-2
40/112	2	5.0	F2 IV	"	"	"	"	B	RSCV$_4$-Ly		"
40/113	"	"	"	"	"	"	"	A	"		"
40/111	"	"	"	"	"	"	"	B	"		"
							"				
				BC	1200/.1	150/10	"	A		T=44°F set 525	"
10/110	2	5.0	F2 IV	"	"	150/.7	"	A	RSCV$_4$-Ly		F-2
40/110	"	"	"	"	"	"	"	B	"	cloud	"
40/42	"	3.0	K2 III	"	"	"	"	A	Std Vel	T=43°F	"

253

Near Infrared Spectroscopy

Emulsion Batches:
IIaO

Date Apr. 20-21/22 Tues Wed Observers Cg. Nyd. Tn

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46776	HR 4540 B VII	11 45.5	+2 20	21 46	22 07	00.05E	+1 45	Ne	15
"	HD 101501 HR 4496	11 35.8	+34 46	22 13	22 23	00 37W	+34 21		
"	31 Com HR 4883	12h 46.8	+28° 05'	22 29	22 46	00 05E	+27 42		
"	HD 114710	13 07.2	+28 23	22 50	22 57	00 36E	+28 01	Ne	15
46777	45 Boo HD 134083	15 02.9	+25 16	23 22	?	? E	+24 59	Ne	15
46777E	FOCUS TEST			collimator rotated CW before clamping				Fe/Ne	10
F2				beam evenly illuminated this way but must					
F3				centered on guiding					
F4				Beam now centered, Hartmann mask moved by hand				Fe/Ne 6+6	10/10
F5								"	10
56								"	10

Spectr. Temp. ..... Dome Temp./Hum. 45°F/80% Transparency Conditions ... Fine ... some cloud ...

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. 43°/90% .

254

Comparison Type/Filter	Exp.	Exp. Mer.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
		120, 180, 360, 720	4"	4.16	F9V	New Spect	1200/5.0	0.6	IIaO		mt Std	2 mag filter F 5.08	
		180, 360,	4"	6.07	G8V	"	"	"	"		"	no filter	
		70', 90, 180,	"	5.63	G0III	-	-	-			-	2 mag filter for 1st Exp., then no filter	
	15	8', 36', 72', 90'	2½"	4.85	G0V	"	"	"	"		"	no filter	
	15	3', 60',	"	5.36	F5V	"	"	"	"		"	— stopped by clouds	
						old collimator	830/.68	13	IIIaO	A		T = 40° F = 530	
										B		510	
										A		490	
										A		T = 40 F = 540	red
										B		540	
										A		550	

Emulsion Batches:

Date WED: THRUS APR 21-22 Observers Cy - Mxd - Ri

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46778	HD 109011	12 26.5	+55°40	20: 19	20:50	01h57E	+55°15	Ne	15sec
"	HR 4540	11 45.5	+02°20	21: 07	21:09	00h58E	+01° 57		
"	HR 5404	14 21.8	+52°19	21: 48	21: 52	02h49E	+51° 58		
"	HR 4932	12 57.2	+11°30	22:00	22:08	01h11E	+11°09		
46778T1	FOCUS TESTS							Fed Ne / WG67G	10
" T2								"	"
" T3								"	"
" T4								"	"
" T5								"	"
46778	JUPITER IV	1882 14m 17s	1882 +12°08	23: 39	23: 52	00h49E	-12°07'		
46778	HR 5901	15 47.5	+35°58	00:00	00:10	E	+35°47'	Ne	15SEC
46779	HR 6212	16 37.5	+31°47	00:21	00:30	2h27 E	+31°41	Ne	15SEC
"	HR6623	17 42.5	+27°47'	01: 51	01:56	02h06E	+27°46'		
"	HR 6703	17 53.9	+29°16	02:01	02: 11	02h03 E	+29° 17'		
"	HR 6752	18 00.4	+02°31	02:17	02:36	01h49E	+02°34		

Spectr. Temp. ..... Dome Temp./Hum. 38°F ... 64% Transparency Conditions .. Good with some clouds Aperture 02.20 - 3.00

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

256

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
20 min	2	9.0	K2 V	NEWT. SPECT.	1200/.5.00	0.6	IIaO		MK STD. #53	Form 5.080	
test 10 test 20 test		4.16	F9 V	"	"	"	"		MK STD. # 73 T1		
5, 10, 20 fast test		4.56	F7 V	"	"	"	"		MK. STD #53		
15, 30 fast test 1 slow test		V= 2.83	G8 IIIa6	"	"	"	"		MK STD. #73T2	2x FILTER IN	
				OLD COLLIMATOR	1200/.2	13	IIaO	A		T 40°F 504	
								B		best center focus 514	
								A		524	
								B		494	
								A		484	
4 slow trail	2+	6 5	G2 V	NEWT. SPECT	1200/.5	0.6	IIaO				
5, 30 fast test 1 slow trail		5.5	K1 IIIa	"	"	"	"		MK STD.		
15, 30 1 fast test 1 slow test		3.46	G0 III	"	"	"	"		MK STD. #73T4	2x FILTER IN	
10 fast		4.2	Q5 IV	"	"	40μ/.6	"		MK STD. #75T2		
5, 10, 20, 30 fast test		4 6	G4 IV	"	"	"	"	"	MK STD #75T2		
14 14 28 fast test		4.9	K0 V	"	"	"	"	"	MK STD #53	some clouds	

257

Cont

Date Thru April 22 1982 Observers Cy-Ri

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46779	HR 7503	19 39 2	+50° 18	03:14	03:28	00+30E	+50°33	Ne	15s
46780	HR 7504	19 39 2	+50° 17	03:47	04:04	01+54E	+50°33	Ne	15s 15s
46780A	spot sola plate				15min @ 150 volts	D3	4300		

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions .....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. 29°F 82% 258

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
0, 20, fast trail 1, 2 slow trail		6.6	GSV	NEWTON SPECT.	1200/.5	40u/0.6	IIaO		Mt STD		
3, slow trail with filter 1, 2, slow trail with no filter		6.8	G4V	"	"	"	—		"	Filter #2	
							IIaO				

Companion Filter Exp

259

Date . Fri April 23 1982 Observers . Cy - Ri .....

Emulsion Batches:
IIa-0B - 3hm .....
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46781	HD 136202	15 14.2	+02° 09	02 18	02:21	00h 50W	+01° 55'	Ne	10-10
"	HD 154417	17 01.2	+0° 51	02:28	02:31	00h 45E	+00° 49'	Ne	10-10
"	HD 149803	16 32.0	+29° 56	02:37	02:49	00h 01W	+29° 50	Ne	10-1[illegible]
"	HD 172044	18 32 9	+33° 23	02:56	02.58	01h 50E	+33° 31	Ne	10-1[illegible]
"	HD 186088 Faint Companion #1	19 40.8	+29° 01	03:06	04:03	01h 59E	+29° 15	Ne	10-1[illegible]
46781T	optical plate			15mm @ 15 Volts D3		4300			
46781	HD 192572	19 20.2	+11 44	04:08	04:22	01h 15E	+11° 57'	Ne	10-10

Spectr. Temp. ..... Dome Temp./Hum. 37°F 71% Transparency Conditions .....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. 35°F 76% 260

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2 fast trail		5.6	F8 II	NEWTON SPECT.	1200/.5	40μ/.4	IIaO B		8d 2d		
fast trail		5.9	G0 I	"	"	"	"		8d 2d		
12 min		8.9	F7 I	"	"	"	"		5 S.J.		
20 fast trail		5.9	B9	"	"	"	"		8d 2d		
		~11	?	"	"	"	"			cirrus clouds rec'd	
							IIaO B				
		5.2	G8 II	"	"	"	"		8d 2d	clouds	

26

Date Fri. Sat. Apr 23/24 1982 Observers Ly - R. - WR

Emulsion Batches:
IIaO-E 12081-15042
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
	CHECKED COLLIMATION on a STAR				LOOKS	FINE			
46782	HD 118216	13 30.3	+37° 42	21:33	22:06	01 39E	+37°15'	Fe/-	9-9
46783	"	"	"	22:07	22:37	01 06E	"	Fe/-	9-9
46783F	spectral hr plates	46782-			15 min @ 15 volts	D4 3900 D3 4300 D2 4810			
46784	HD118216	13 30.3	+37 42	22:38	23:15	00 27E	+37°15'	Fe/-	9-9-9
46785	"	"	"	23:16	23:53	00 10W	"	Fe/-	9-9-
46786	"	"	"	23:54	00:27	00 44W	"	Fe/-	9-9-
46787	HD107328	12 15.3	+3 52	00:47	01:15	02 46W	+3 25	Fe/-	9-9-
46787F	focus.					02 46W	+3 25	Fe/-	20-2

Spectr. Temp. ..56°F..... Dome Temp./Hum. ..50°F 65% Transparency Conditions .....Good.....

Focus .....521.....

Spectr. Temp. ..54°F..... Dome Temp./Hum. ..47°F..75%. fresh coat on secondary no corrector plate. 262

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
											NO
10/110	2-3	4.9	F2 V	B.C.	1200/.1	B.S	IIa-E	B	RSCUN -Ly		COMP
10/110	"	"	"	"	"	"	"	A	"		
							IIa-E				
10/110	2-3	4.9	F2 IV	Bc	1200/.1	BS	IIa-E	B	RSCUN -Ly		
10/115	"	"	"	"	"	"	"	A	"		
10/110	"	"	"	"	"	"	"	B	"		
10/50	2-3	5.2	K1 III	"	"	"	"	A	Std Vol	small piece broken off end. T = 52°F	
								B			

KK adjusted comp feed mirror for old collimator — apparently too far off for slicer/Feroc

263

Date Sat Sun ~~April 24 25~~ Observers Ly-Ri

Emulsion Batches:
Ilford E 05031-23042 24 196
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46788	HD 118216	13 30.3	+37 42'	22: 17	22: 56	0h45E	+37°15	Fe/—	9-9-9
46789	"	"	"	22: 57	23:37	00h03E	"	Fe/—	9-9-9
46789T	spot cal fn plate	46788-9		15 min @ 15 Volts		D4 D3 D2 3900 4300 4810			
46790	HD 118216	13 30.3	+37 42'	23: 38	00: 19	00h40W	+37°15	Fe/—	9-9-9
46791	"	"	"	00: 20	01:02	01 22W	"	Fe/—	9-9-
46791F	Glass					01 22W	"		20-20
46791F2	Hartmann tests — mask on collimator							Fe/—	5
F3	100 μ pinhole slit							Fe/—	5

Spectr. Temp. ..620F..... Dome Temp./Hum. ..54°F...65% Transparency Conditions .....Good.....

Focus .....520.....

Spectr. Temp. .....58°F..... Dome Temp./Hum. .....54°F...69%

264

no corrector plate

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/130	2-3	4.9	F2 III	B.C.	1200/.1	B.S.	IIaO-E	A	RS CuA-Ly		V. Wk
40/130		"	"	"	"	"	"	B	"		Comp
							IIaOE				
40/130		4.9	F2 IV	B.C.	1200/.1	B.S.	IIaO-E	A	R.S. CuA-Ly		
40/130		"	"	"	"	"	"	B	"		
				"	"	"	"	A			
				X	1200/.5		098	A		T=60° F=550	weak
				X	1200/.5		098	B		F=450	
										F=650	
										F=350	

265

Date Apr. 27-28/82 Tues-Wed Observers Ly-Ri

Emulsion Batches: IIaD 05031-23042

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46792	HD118216	13 30.3	+37 42	20:34	22:09	01 20E	37 16	Fe/-	9-9-9
46793	"	"	"	22:14	23:18	00 10E	"	Fe/-	9-9
46794A	"	"	"	23:21	00:26	00 58W	"	Fe/-	9-9
46794T	spot calibration	plate	for 46792-46794		15 min @ 15V		D4 3400	D3 4300	D2 4810
46794F	focus.								
F2	focus							Fe Ne/.6	10
T	comparison arc							"	10-
T3								Ne/-	10-15
T2								Ne/-	10-

Spectr. Temp. 50°F ..... Dome Temp./Hum. 40°F 75% Transparency Conditions ... haze ... windy .....

Focus ..... 522 ..... adjusted comparison feed mirror

Spectr. Temp. ..... Dome Temp./Hum. .....

266

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
9/110	4-6	5.0	F2 III	BC	1200/.1	Bs	IIaOe	B	RSCV-Ly	50°F 522	
40/110	3-4	"	"	"	"	"	"	A		48°F 523	
40/110	3-4	"	"	"	"	"	"	B			
							IIaOe				
				BC	1200/.1	Bs	IIaOe	A		45°F set 523	
				X	"	B	II-O	A		50°F set 494	very blue
				X	"	B	II-O	B			
				X	1200/.5	B	098	A			very blue
				X	"	B	098	B			

267

Date Apr 28/29 1982 (Hard Film) Observers L. – In

Emulsion Batches: Wade 05031 – 23042

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46794B *	HD 118216	13 30.3	+37 42	20:06	21:05	02 20E	+37 15	Fe/–	8-9-9
46795	"	"	"	21:06	22:06	E	"	"	9-9-9
46796	"	"	"	22:07	23:08	0 17E		"	9-9-9
46797	"	"	"	00 10	01:07	01 41W	"	"	9-9-9
46798	HD161096	17 38.5	+4 37	01:10	01:17	02 16E	+ 4 35	"	12-12
46798T	Spot Calib for 46794	-98		15 min @ 15V		D4 3900 D3 4300 No 3rd set			
46798F	focus test					02 16E	+ 4 35	Fe/–	19-19
F2	focus test				T=	46°	F= 511		
F3	"				T=	50°	F= 510	Dense/UV6	12-10
T2	full aperture						F= 510	"	10
T3	"						F= 505	"	"
T4	"						F= 515	"	"

Spectr. Temp. 50°F Dome Temp./Hum. 45°F/57% Transparency Conditions good

Focus 522

Spectr. Temp. 45.5°F Dome Temp./Hum. 39°/59% gusty

268

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/110	3-4	5.0	F2III	BC	1200/.1	B5	IIaO E	A	RSCVn		Fine
40/110	"	"	"	"	"	"	"	B	"		"
40/120	2-4	"	"	"	"	"	"	A	"		"
40/110	"	"	"	"	"	"	"	B	"	T=48°F	"
40/45	3-4	3.0	K2III	"	"	"	"	A	Std Vel		"
							"				
				Bc	1200/.1	B5	IIaO E	A		done manually T=45.5°F	
				X	1200/15	13	IIaO	A	Note- probably not required at time of normal test. Must too far south on stellar exp.		
				X	"	"	"	"			
				"	"	"	"	B			
				"	"	"	"	A			
				"	"	"	"	B			

269

Date Apr 29/30 1982 Thurs Fri Observers Ly - Tu

Emulsion Batches:
IIaO-E 09031 - 28042
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46799F	focus.					00 25W	+23 47	FeNe/W16	10-10
46799	HD84441	9 902	+24 14	20 03	20 13	00 42W	"	FeNe/W16	7-7
46800	"	"	"	20 24	20 29	00 59 W	"	-/-	13-13
46801	HD118216	13 30.3	+37 42	20 34	21 23	01 57 E	+37 15	Fe/-	9-9-9
46802	"	"	"	21 26	22 14	01 07E	"	"	9-9-9
46802T	Spot Calc	for 46799-46806			15 min @ 15V	D4 3900	D3 4300	D2 4240	
46803	HD 118216	13 30.3	+37 42	22 15	23 06	00 15 E	+37 15	Fe/-	9-9
46804	"	"	"	23 07	23 46	00 26 W	"	Fe/-	9-9
46805	"	"	"	23 49	00 34	01 11 W	"	Fe/-	9-9-9
46806	"	"	"	00 35	01 32	0211 W	"	"	9-9-9
46806F	Focus Test					"	"	"	19-19

Spectr. Temp. ...58°F..... Dome Temp./Hum 54°F / 50%

Focus .....

Spectr. Temp. ...53.5°F..... Dome Temp./Hum. 48° / 60%

Transparency Conditions ...Fair...Hazy... 270
good Aurora for short time around 20 hrs

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				X	1200/.18	13	098	B		T=58°F Set 512.5	Stellar wreck
10/7	2-3	3.	G1 IIab	"	"	"	IIaO-e	A	Std Vel test		
10/40	"		"	BC	1200/.1	BS	IIaOe	B	"	T=57°F Set 521	S/wk
10/120	3	50	F2 IV	"	"	"	"	A	RsCVn-Ly		
10/120	2-3	"	"	"	"	"	"	B	"		
							"				
10/120	2-3	50	F2 V	BC	1200/.1	BS	"	A	RsCVn-Ly	T=56.5°F Set 521	
10/120	"	"	"	"	"	"	"	E	"		
10/60	"	"	"	"	"	"	"	A	"		
10/120	"	"	"	"	"	"	"	E	"		
				"	"	"	098	A	T 53.5°	Set 521	

271

Fri - Sat

Date Apr. 30/May 1. 82. Observers T.n. - H.K.

Emulsion Batches:
Tri-X 05031 - 28092
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46807F	Focus Test					0 0	+5°	Fe/-	2192
46807	HD 89449	10 14.3	19 59	19 57	20 13	0 11 W	+	Fe/-	13-13
46807T	Spot Color for	46807-	12		15 min @ 15V	D4 3900	D5 4300	02 4810	
46808	HD 118216	13 30.3	+37 42	20 17	21 05	2 13 E	+37 13	Fe/-	9-9-9
46809	HD 122742	13 58.6	+11 16	21 13	23 05	0 40 E	+10 50	"	9-9-9
46810	HD 124-57	14 11.1	+19 42	23 11	23 11	0 46 E		"	13-13
46811	HD 137909	15 23.7	+29 27	23 15	23 25	1 45 E		"	13-13
46812	HD 118216	13 30.3	+37 42	23 31	00 24	1 06 W	+37 11	"	9-9-9

Spectr. Temp. ..62.5..... Dome Temp./Hum. +58°F/50% Transparency Conditions ..Clear - sl hazy.....

Focus ....5.21.....

Spectr. Temp. ...58°F..... Dome Temp./Hum. +52°/55%.

272

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	1200/.1	BS	098	A		Set 521 T 62.5	
3/40	F2'	5.3	F6 IV	BC	"	"	[illegible]	B	stellvel		
							"				
3/123	1-3"	5.0	F2 IV	BC	1200/.1	BS	"	A	KSCV-Ly	T=62°F	
20/300	2-3"	6.9	G8 V	"	1200/-.025	"	"	B	Asm Sp KK		
3/40	5"	4.3	K2 IIIp	"	"	"	"	A	stellvel		
20/60	4"	3.9	F0p	"	"	"	"	B	Asm Sp KK		
20/120	3-5-8"	5.0	F2 IV	"	1200/.1	"	"	H	KSCV-Ly	bad seeing	

273 Vis Tour 2 hrs

SAT-SUN

Date MAY 1 : 2 / 82 Observers Tm

8m 68° Emulsion Batches: IIaO-G 05031 - 30042

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46813	HD 118216	13 30.3	+37 42	21 58	22 58	00 14E	+37 16	Fe/-	9-9-9
46813T	Spot Calc For	46813-17		15 min @ 15V		D4 3800	D3 4300	D7 4810	
46814	HD 118216	13 30.3	+37 42	22 59	23 48	00 36W	+37 16	Fe/-	9-9-9
46815	"	"	"	23 49	00 38	01 26W	"	"	9-9-9
46816	"	"	"	00 39	01 32	02 20W	"	"	9-9-9
46817	HD 124752	14 11.1	+19 42	01 36	01 37	01 44W		"	13-13-13
46817F	Focus Test					"	"	"	19-19

Spectr. Temp. 59°F ..... Dome Temp./Hum. +54°/60% Transparency Conditions ..... Sl. hazy but Good ....

Focus 521 .....

Spectr. Temp. 54.5°F ..... Dome Temp./Hum. 48°F/70% 274

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
20/120	2-3"	5.0	F2 IV	RC	1200/1.1	BS	IIIa-O	A	KSCV-Ly		
							"				
20/120	3"	5.0	F2 IV	RC	1200/1.1	BS	"	B	KSCV-Ly		
20/120	2-3	"	"	"	"	"	"	A	"	T=56°F	
20/120	2-6"	"	"	"	"	"	"	B	"	some cirrus	
20/40	4"	1.3	F2 IV	"	"	"	"	A	shivel		
				"	"	"	"	B			

225

Date May 5-6 1910 Observers J.A.

T° 68° Emulsion Batches: Ila O a 03231 30047

29 202

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp	Exp Mtr
16818	HD 112216	13 30.2	+37 42	19 58	20 55	2 15 E	+	Fe/—	9-9	1/20
16819	"	"	"	20 59	21 59	1 08 E	+	Fe/—	9-9	1/20
16820	"	"	"	22 00	23 09	0 01 W	+37 16	"	9-9	1/20
16820T	Spot Calc for	16818-	21		15 min @ 15V	D4 3900	D3 4300	Fe 1810		
16821	HD 124752	14 11.1	+19 42	23 14	23 15	0 23 E	+19 13	Fe/—	12-12	1/20
16821F	Focus test					"	"	"	9-9	
F2	Focus Test		with computed correction plate			masked to	pass	Fe/—	12-12	
T°	Comparison exposure		0th & adjacent 2nd		under slide			Fe/—	10	

Spectr. Temp. 58°F Dome Temp./Hum. 54°F / 73% Transparency Conditions Fine

Focus 521

Spectr. Temp. ____ Dome Temp./Hum. 48° / 85%

276

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
0/120	2"	5.0	F2 IV	BC	1200/.1	BS	Ila O	A	Asecurity	broken 2pcs	
0/120	2.3"	"	"	"	"	"	"	B	"	adj focus before shooting	
0/120	3.5"	"	"	"	"	"	"	A	"	cloud	
							"				
0/43	3"	1.3	K2 IIIp	BC	1200/.1	BS	"	B	swivel		
				"	"	"	IIa O	A		T = 54.5°F Set 521	
				BC	1200/-.025	BS	IIa O	A		T = 53° Set 500	v slthaze
				"	"	"	"	B			just fine

277 Fri - Sat

Date MAY 14-15 1982 Observers KK-Phi-Ri

Emulsion Batches: 8" 680 11498 05031-14052

24 196

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46822F	Focus test							Fe/—	20/20
46822	HD81797	9 22.7	−8 14	20:27	20:40	2 23 W	−08 37'	Fe/—	10-10-
46823	HD 122742	13 58.6	+11° 16	20:45	22:34	0:15 E	+10 47	Fe/—	10-10-
46824	HD 124897	14 11.1	+19 42	22:40	22:41	0:21 E		Fe/—	15-15
46825	HD 124897	"	"	22:45	22 46	0:16 E		Fe/—	15-15
46826	HD 126202	15 14.2	+ 2 09	22:50	23:17	0 48 E	+01 47	Fe/—	15-15-
46826T	optical fa plate	46822-			15 min @ 150 A	D4 39 m	D3 4300	D2 4910	
46826F	Focus test							Fe/—	20-20

Spectr. Temp. 65° Dome Temp./Hum. 58°/75% Transparency Conditions scattered cloud

Focus 497 (cemental corrector plate)

Spectr. Temp. 63° Dome Temp./Hum. 54°/75% clear at end

278

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC.	1200/-.024	B.S.	IIaO	A			
40/90	5"	22	K3II -III	BC	1200/-.025	BS	IIaOe	B	Std Vel.		
200/250	3"	6.8	G8V	"	"	"	"	A	Asm Spec KK		
20/30		1.3	K2	"	"	"	"	B	Std Vel	α Boo -4.3± .1	
0/20		"	"	"	830/.68	BS	IIaOe	A	Std Vel		
80/110		5.6	F8	"	"	"	"	B	Std Vel	T=63°F ₹498	
							IaO-E				
				"	"	"	"	A			

279 Tom looked at Saturn

Sat-Sun

Date ... MAY 15-16/52 ... Observers ... Crw - Rei

8m 68° Emulsion Batches: Tri-O-E 05031-14052 23 207

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46827	HD 109729 (T U Mus)	$12^h 31.^m 8$	+60° 02'	23:00	1:15	$3^h 54^m$ W	+59° 32'	Fe/—	15-30
46827T	spectral for plate 46827 -				15 min @	15 Volts	D4 3900 D3 4300	D2 4810	
46828	HD 207076 (Lx Boo)	$14^h 19.^m 7$	+26° 09'	1:52	4:20	$5^h 13^m$ W	+25° 48'	Fe/—	15-15
46828F	Tom's Test							Fe/—	20-20

Spectr. Temp. ...65°F..... Dome Temp./Hum. ...60°F...70%... Transparency Conditions .....CLEAR.....

Focus .....498.....

Spectr. Temp. ..... Dome Temp./Hum. ...60°F...67%...

280

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/200	3"	8.4	M4e-M6e	BC	830/.68	150/.3	IIa-O E	A	Crw-MIRAS	Exp = 2h 15m	good
							IIaO-E				
400/280	3"	8.1	M8e	"	"	"	IIaO-E	B	"	BROKEN 2 PIECES Exp = 2h 28m	sl weak comp. sl. strong
						150/1.0	IIaO-E	A		T. 63°F F. 498	blue

28 Fri.-Sat

Date . May 21-22, 1937 . Observers . K.K.-Phi.-Th.....

Emulsion Batches: H&D.C. 05231 — ? not noted

26-28

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46829	HD 103095	11 47.2	+38 26	20 34	23 29	3 18W	+37 47	Fe/—	10-10
46829T	Spot Calc. for 46829-32.			15 min @ 15V		D4 3900	D3 4200	D3 4810	
46830	HD 137909	15 23.7	+29 27	23 39	00 24	0 38W	+29 06	Fe/—	14-14
46831	HD 159561	1730.3	+12 38	00 38	00 49	01 05 E		"	16-16
46832	HD 161096	17 38.5	+4 37	00 54	01 26	00 36 E	+4 31	"	16-16
46832F	Focus Trs+					"	"	"	26-26

Spectr. Temp. +63°F Dome Temp./Hum. +55°F/80% Transparency Conditions ...getting cloudy

Focus 499

Spectr. Temp. +55°F Dome Temp./Hum. 44°F/83%

282

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
20/63	5-7"	7.2	G8III	RC	1200/.025	BS	IIaO-e	A	Asm Sp KK	some cloud	Sl weak comp go in
							IIaOe				
0/82	6"	3.9	F0 III	RC	1200/.025	BS	"	B	Asm Sp KK	cloud	Fine comp good
2/57		2.2	A2 III	RC	1200/-.025	BS	IIaO-e	A	Asm Sp KK	Set 502 T=56°F	comp weak
0/49	6"	3.9	K2III	"	"	"	"	B	Stdard	cloud	good comp wk OR, CN
				"	"	"	IIaO	A		T=55° Set 502	Very weak

283 Tues-Wed

Date JUNE 1-2/82 Observers T.?

Emulsion Batches: IIaO-E 05031 – fairly old

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46833	HD 88021/2	10 03·8	+20 49	20 47	22 10	4 26 W	+20 22	Fel –	9-12-9
46833T	Spot Calib	for 46833	"		15min @ 15V		D4 3900 D3 4300	D2 9810	
46832F1	Focus Test	but stellar comp had to be fixed manually ∴ mask pos may be wrong						Fel –	9-14
46833F2	Focus Test	(marked F2)		no Musk problem		on this Exp.		Fel –	73 2=

Spectr. Focus Spectr. Exp. Mtr 44/85

Spectr. Temp. +64°F Dome Temp./Hum. +56°F / 76% Transparency Conditions . . Just clearing

Focus 499

Spectr. Temp. +61°F Dome Temp./Hum. +56°F / 96%

284

Cloud, seeing and focus system all conspired here.

Comparison Type/Filter	Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
		30/85	2-3	47.20	965 +A2	BC	830/68	85	IIaO-e	A	VB Bln	some cloud lingering too long	Phl exp with ↓
									IIaO-e				
						BC	830/68	BS	11	B	T=+61°F	Fe+499	no goal
						〃	〃	〃	〃	B	〃	〃 m −7.1u	can't blame
												should be discarded	

25

Date WED.-THURS. JUNE 2-3 Observers ....RI.....

Emulsion Batches:
Tri-E 05031-02062
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.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46834F	FOCUS TEST							Fe/-	23-23
46834	HD 89449	10 14.3	+19° 59	20.43	21.27	03h 35W	+19°30'	Fe/-	15-15
46835	HD 149363	16 29.1	-05° 56	21.36	01:57	01h 51W	-06°07	Fe/-	15-15
46835T	SPOT CAL. FOR	PLATES 46834-36			15 MIN. @ 15 VOLTS		① D4 3900 ② D3 4300	③ D2 4810	
46836	HD 187567	19 45.4	+7° 39°	02:06	03:37	00h 15W	+07047	Fe/-	15-15
46836F	FOCUS TEST							Fe/-	30-30

Spectr. Temp. ...65°F..... Dome Temp./Hum. ...53°F....68% Transparency Conditions ..Good clear scattered cirrus clouds on & off the rest of the night 286

Focus .....498.....

Spectr. Temp. ..... Dome Temp./Hum. ...44°F....91%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C.	830/.680	B.S.	IIaO	A		m −5.3 T=65°F F=498	center vs/blue
80/110	4-5	5.3	F6IV	B.C.	830/.680	B.S.	IIaO-E	B	Std Dal		Fine
200/180	"	7.76	B0 5V	B.C.	830/.680	B.S.	IIaO-E	A	RUNAWAY	cirrus clouds thick all night on and off	S/wk
							IIaO-E			clouds again near dawn	
400/235		6.42	B2.5IIIe	B.C.	830/.680	B.S.	IIaO-E	B	RUNAWAY	T=55°F F=501	VS/wk
				B.C.	830/.680	B.S.	IIaO-E	A		m −10.0 T=53°F F=501	vs/blue

267

Date JUNE 7-8 MON. TUES Observers ... PLi - Ri ..... 4m 68°

Emulsion Batches:
JAN - E 05031 - 02062 ...
FEB 09061 - 02062 4½ hrs 16I 3+
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46837	HD 137909	1523.7	+29°27	23:14	23:30	00h51m W	+29°05	Fe/-	17? 17
46838	HD 159561	1730.3	+12°38	23:40	23:49	00h57m E	+12°33	Fe/-	25-25-
46839 ✓	HD 182640	1920.5	+02°55	23:57	00 33	02h05m E	+03°02'	Fe/-	25-25-
						① 17.5V	② 15V ③	15V	
703397	SPOT CAL FOR PLATES 46838-			15 MIN @ D4		3900	4300	4910	
46840 ✓	HD 196524	20 329	+14°15	00:39	02.00	01h49m E	+19°29	Fe/-	25-25-
						① D4	② D3	③ D2	
46840T ✓	SPOT CAL FOR PLATE 46837			15 MIN @ 15 VOLTS		3900	4300	4910	
46841	HD 183912	1926.7	+27 45	03 06	03 50	01h06m E X	27°53	Fe/No 66	2-10
46841F	Fogged							Fe/-	30-3

Spectr. Ter
Focus....
Spectr. Ter
Exp. Mtr

Spectr. Temp. ...64°F..... Dome Temp./Hum. ..58°F....95% Transparency Conditions . Good. A. bit. thin. scattered clouds

Focus .....498.....

Spectr. Temp. ..... Dome Temp./Hum. ..53°F....100%

288

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/85	1-2	3.93	$F0_D$	B.C.	1200/-.025	B.S	IIaO-E	A	Asm Sp kk		fine
40/135		2.2	A5II	B.C.	1200/-.025	B.S.	IIIaJeb	B	"		high fog
40/190	3-4	3.68	F5II	B.C.	1200/-.025	B.S.	IIIaJeb	A	"	BROKEN 2 PIECES clouds	"
							IIIaJeb				"
40/190		3.78	F5II	B.C.	1200/-.025	B.S.	IIIaJeb	B		clouds capped for 15 min.	"
							IIaO-E				
40/200	3	4.8	K5II	B.C.	1200/+2.00	150/3	IIaO-E	A		first to uncap the plate	fine comp wk one side
						150/1.0	IIaO-E	B		T=61°F F=498	readable
			$4\frac{1}{2}^{M}$ baked in		IIIaJ too long — high fog level						

Comparison pe/Filter Exp.

289

Date June 8-9, 1982 Tues-Wed. Observers Gris - Ri

Emulsion Batches:
IIa-O-E 05031-02062
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46842F	Focus Test					0^h		Fe/-	30-3
46842	HD 115521	$13^h 12.^m6$	+6° 20'	20:35	21:15	$0^h 50^m$ W	+5° 34'	Fe/-	15-15
46843 ✓	HD 149363	16 29.1	-5 56	21:20	01:16	1 34 W	-6 06	Fe/-	15-15
46843T	SPOT CHCK' FOR PLATES 46842-				15MIN @ 15V.	① 04 3900	② 03 4300	③ 02 98	10
46844	HD 191566	20 05.5	+35 11	01:22	03:51	$0^h 34^m$ W	+35 23	Fe/-	15-15
46844F	Focus TEST					$0^h 34^m$ W	+35 23	Fe/-	3-3

Spectr. Temp. +67°F ..... Dome Temp./Hum. +62°F / 80% Transparency Conditions .. hazy .....

Focus ... 497 .....

Spectr. Temp. +62°F ..... Dome Temp./Hum. 57°F / 75%

298

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					830/.68	BS	IIaO	A		T=67°F F=497 m -6.7	cant blue
30/150	2-3	5.0	M2IIa	B.C.	830/.68	BS	IIaO-E	B	Std. Velocity		good
20/620		7.76	B0.5V	"	"	"	"	A	Runaway *	T=67°F	good
							IIaO-E				
00/325	2-3	7.26	B0.5V	BC	830/.68	BS	IIaO-E	B	Runaway *	T=64°F F=498	good
				B.C	830/.68	BS	IIaO-E	A		T=62°F F=498 m -109	cant blue

291

Date June 10-11, 1982 Thurs.-Fri. Observers GIS - Jn

Emulsion Batches: IIaO-E 12081 - 08062

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Ex
46845	HD 161096	$17^h 38.^m5$	+4° 37′	23:22	23:32	$1^h 11^m$ E	+4° 34′	Fe/-	21-
46846	HD 197419	20 38.5	+35 06	23:53	1:51	1 51 E	+35 24	Fe/-	15
46845T	Spot Calc	for	46845-47		15 min	@15V D4 3000	D3 4300	D2 4000	
46847	HD 187567	19 45.4	+7 39	1:56	3:45	0 56W	+7° 52′	Fe/-	15
46847F	Focus Test					0 56W	+7° 52	Fe/-	2

Spectr. Temp. 64°F ..... Dome Temp./Hum. 59°F / 100% Transparency Conditions ..sl. hazy.....

Focus ...500.....

Spectr. Temp. ..60°F..... Dome Temp./Hum. 54°F / 97%

292

Comparison Type/Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe-	40/50	4"	3.9	K2I	BC	830/.68	BS	IIaO-E	A	Std. Velocity		fine
Fe-	40/350	6"	5.52	B2Ie	"	"	"	IIaO-E	B	Runaway *		fine
								IIaO-E				
Fe-	40/375	4"	6.42	B2.5IIe	BC	830/.68	BS	IIaO-E	A	Runaway *	T=61°F * Fe Arc made	fine
Fe-					"	"	"	IIaO-E	B		m - .8u	ok

293

Set Dec 8's of processed card.

Emulsion Batches: IIaO.E. 12581 - 08062

Date 1983 Jun 11/12 Fri/Sat Observers Glin Tn

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
46848F	Focus Test					00 07W	+20°	Fe/-	30-35
46848	HD124897	14 11.1	+19° 42'	20:33	20:34	00 38E	+19° 09'	Fe/-	25-25
46849	HD157482	17 18.5	+40° 04'	20 44	23:00	01 18E	+39° 53'	Fe/-	20-20
46849T	Spot Calib for	46848-50		15 min @ 15W	D4 3900	D3 4300	D2 4810		
46850	HD184927	19 31.6	+31° 04'	23 08	0052	01 39E	+31 06	Fe/-	15-25

Spectr. Temp. T=68°F ..... Dome Temp./Hum. 64°/71% Transparency Conditions ... Cirrus (temp ... 5<0°).
Getting worse!

Focus ... 499 .....

Spectr. Temp. 64°F ..... Dome Temp./Hum. 64°/84% 294

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	1200/-0025	BS	IIa-0E	A		T=68°F cent/5/Red	
20/16	OK	1.29	K2III$_p$	BC	1200/-0025	150/.3	IIa-0E	B	Std. Vel.		vsl str.
20/200	1-2	6.22	dF8	BC	1200/-0.025	150/.3	IIa-0E	A	SB-Blu/Ly	* changed grism to 400 at 200/125 some cloud read 400/150	V.sl. Strong
							IIa-0E				
20/59?	2-?°	7.30	B2V$_p$	BC	830/.68	BS	IIa-0E	B	Blu-He*	T=66°F @ begin F=499 The P.t.!	Weak

295

Date 1962 June 13/14 Observers T.n. - T.

Emulsion Batches:
II-a-E 12081 - 12062
II-a-E 12081 - 12062

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46851F	Focus Test							Fe/-	
46851	α Boo HD 124897	14·11.1	+19 42	20 37	20 38	0h 26 E		Fe/-	
46852	HD 95735	10 57.9	+36 38	20 52	23 35	5 44 W	+35 59	Fe/-	15-B-1
46853T	Spot Cals for	46851-	56	1	@ KV	D1 3900 D3 4300	D2 4810		
46853	HD 122742	13 58.6	+11 16	23 46	01 19	4 28 W	+10 47	Fe/-	
46854	HD 183912	19 26.7	+27 45	01 41	02 35	0 15 W	+27 47	Fe-Ne/60	10-10-1
46855	HD 182640	1920.5	+2 55	02 42	02 53	0 40 W	+2 57	Fe/-	26-2
46856	HD 196524	20 32.9	+14 15	02 57	03 13	0 16 E	+14 23	Fe/-	26-2
46857	HD 182572	19 20.2	+11 44	03 12	03 42	1 30 W	+11 46	Fe/-	26-2

Spectr. Temp. ...64°F..... Dome Temp./Hum 63°F./83% Transparency Conditions ...Fine...vs. haze.....

Focus ....499.....

Spectr. Temp. ..... Dome Temp./Hum. 53°/.90% weak aurora 296

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.68	BS	IIaO-E	A		m −0.4 right on	
10/51		-0.06		"	"	"	"	B	std vel	comp wk	fine
40/374	3"	8	M0	"	"	"	"	A	Asm Sp KK		fair
							"			should have 3600 Å for UV	
10/319	2"	6.8	G8V	BC	1200/-.025	BS	"	B	Asm Sp KK		good
10/206	3"	4.8	K5V	BC	1200/0.2	150/.5	"	A	Asm Sp KK		fine
40/72	3"	3.68	F0IV	BC	1200/+.2*	BS	"	B	Asm Sp KK	* I forgot to change from UV Filt	OK 4250
10/71	2"	3.78	F5IV	BC	1200/+.2*	BS	"	A	Asm Sp KK	Should have been 1200/-.025	"
10/47	2"	5.2	G8III	BC	1200/-.025	BS	IIaO-E*	B	Std. Vel.		good

297

Date 1982 JUN 19/20 SAT/SUN Observers S. T.

Emulsion Batches: IIaO-E 12081 – 12062

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
46858	HD 184927	$19^{H}\ 31^{m}.6$	$+31°\ 04'$	22:59	03:08	01:08W	$+31°\ 14'$	[illegible]	1½ K-1
46858T	Spot Calib for 46858			15 min @ 15V		D4 3900	D3 4300	D3 4300	
46858F	Focus Test							Fe/–	26:26

Spectr. Temp. T=59°F ..... Dome Temp./Hum. 50°F / 93% Transparency Conditions Good-Excellent .....

Focus T=107 .....

Spectr. Temp. 56°F ..... Dome Temp./Hum. 48°F / 100+% Cloud at end 28

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
20/310	4"	330	B-Vp	BC	830/63	B4	IIa-0E	B	Ha-OIII+Ha	s/hazy - thin cloud	Fine
							IIa-0E				
				BC	830/69	B5	IIa-0E	A		T=56°F F=50% cirrus vv sl blue	

299

Date WED.-THURS.-JUNE 23-24 Observers R.-B.O.S.

Emulsion Batches:
103-E. 2081-2062
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46859F	FOCUS TEST							Fe/—	30/30
46859	HD 149 363	16 29 1	-05°56	20:58	00:58	24,5W	-06 05'	Fe/—	15-1
46859T	SPOT CHIN' FOR PLATES	46859-			15MIN. @ 15 VOLTS	39	⊙ D4 4300 ⊙ D3 4300	⊙ F2 4810	
46860	HD 203156	21 15.4	+37°19	01:16	03:10	01,7E	+38°11	Fe/—	15-1
46861	HD 201867	21 26.3	-06°01	03:17	03:27	00,3E	-05° 39	Fe/—	1/5-1
46861F	FOCUS TEST							Fe/—	30/30

Spectr. Temp. 6.5°F ..... Dome Temp./Hum. 58°F 74% Transparency Conditions ... Good .....

Focus ..... 500 .....

Spectr. Temp. ..... Dome Temp./Hum. 51°F 86% 300

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C.	830/.680	B.S	IIaO-E	A		T=65°F F=500	OK
400/255	3	7.76	B0.5III	B.C.	830/.690	B.S	IIaO-E	B	RUNAWAY*		Sl wk
							IIaO-E				
0/250	3	6.17	F2	B.C.	830/.680	B.S.	IIaO-E	A	Ceph-Run	T=60°F F=501	Fine
0/		3.7	G0Ib	B.C.	830/.680	B.S	IIaO-E	B	St Vel	58°F F 502	Fine
				B.C.	830/.68	B.S	IIaO-E	A		T= 57°F F= 502	OK

30

Date Sat.-Sun. June 26/27 Observers ....Bl.-Ri.....

Emulsion Batches:
Tri-X ..1208-1410.62..
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46862	HD 146361	16 10·9	+34 07	22 51	23 38	1 25 W	+33 56	Fe/—	15-15-
46863	HD 146362	16 10·9	+34 07	23 40	1 32	3 20 W	+33 56	Fe/—	15-15-
46863T	SPOT CALN FOR	PLATES 46862-66			15 MIN @ 15 VOLTS	① D1 3900	② D3 4300	③ D2 4810	
46864	HD 187638	19 45·9	+38 28	1 38	3 11	1 24 W	+38 42	Fe/—	15-10-
46865	HD 211073	22 09·6	+39 13	3 15	3 38	1 26 W	+39·38	Fe/	15-15
46866	HD 206778	21 39·3	+9 25	3 42	3 50	0 10 W	+09° 47	Fe/—	22-2
46866F	FOCUS TEST							Fe/—	3 3

Spectr. Temp. ....46°F..... Dome Temp./Hum. ..62°F...84% Transparency Conditions ...Good.....

Focus .....500.....

Spectr. Temp. ..... Dome Temp./Hum. ...56°F....94%

302

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
200/250	1-2	620	F8 V	B.C.	830/.68	B.S.	IIaO-E	A	Waterloo		Fes/str Fine
100/500	2-3	7.31	G1 V	B.C.	830/.68	B.S	IIaO-E	B	"	T=66°F	Fine
							IIaO-E				
500/250		7.0	G5 III	B.C.	830/.68	B.S.	IIaO-E	A		T=64°F	Fine
3/150		5.5	K3 III	B.C.	830/.68	B.S.	IIaO-E	B		T=63°F	Fine
20/50		4.0	K2 I	B.C.	830/.68	B.S	IIaO-E	A			Fes/str S/str
				B.C.	830/.68	B.S	IIaO-E	B		T=62°F T 500	cent blue
	Developed by Tm June 29,						8min @	68°F			
										All Fe arcs could be cut back by 25 angstroms	

303

Date Tues-Wed., June 29/30 1982 Observers G.H.S - R.I.

Emulsion Batches:
IaO:F. 12081-14062
.....
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
46867F	Focus test							Fe/—	30-3
46867	HD 161096	17h 38.5m	+4° 37′	20:40	20:48	2h 41m E	+4° 34′	Fe/—	20-2
46868	HD 172488	18 35.4	-8 49	20:54	0:02	0 24 E	-8 44	Fe/—	15-15
46868T ✓	SPOT CAL FOR PLATES 46867-70				15 MIN @ 15 volts	① D4 3900	② D3 4300	③ D2 4800	
46869	HD 201910	21h 07.5m	+40° 47′	0:09	2:53	0 04 E	+41° 07′	Fe/—	15-
46870	HD 203156 (HAZE?)	21 15.4	+37 49	2:56	04:02	0 58 W	+38° 09′	Fe/—	15-15
46870F	FOCUS TEST							Fe/—	30-3

Spectr. Temp. 72°F ..... Dome Temp./Hum. 67°F / 74% Transparency Conditions . Some scattered clouds .....

Focus . 497 .....

Spectr. Temp. 64°F ..... Dome Temp./Hum. 58°F / 92%

304

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC.	830/.68	BS	IIaO	A		T=72°F F=497	OK
0/25	3"	3.9	K2 II	"	"	"	IIaO-E	B	Std. Velocity		Fine
0/166		8.16	B0.5I	"	"	"	"	A	Runaway *	Clouds below equator	wk
							IIaO-E			—missing some emulsion	
0/352	3-4	7.27	B5I	BC	830/.68	BS	"	B	Runaway*	T=69°F F=498	Fine
0/2??	3-4	6.17	F2	"	"	"	"	A	Cepheid/Evans	T=66°F F=499	Fine
				"	"	"	"	B		T=64°F F=499	cent sl blue

305 June 30 – July 1/82

Date Wed–Thursday Observers Crw – Tm

Emulsion Batches: IIaO-E 12081 – 29062

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46871F	Focus Test					0 20W	+ 4 34	Fe/–	30-32
46871	HD 156014	17 10.1	+ 14°30′	20:43	20:55	2h02mE	+14°26′	Fe/–	18-18
46872	RX Boo(HD 20706)	14h19m.7	+26°09′	21:03	23:15	3 09 W	+25°49′	Fe/–	11-14*
46873T	Spot Cals for 45871–74			15min	@15V	104 3900	D2 4300	D2	
46873	R SER(HD 141850)	15h46m.1	+15°26′	23:22	1:32	4 00 W	+15 08	Fe/–	11-11
46874	R AQL(HD 177940)	19h01m.5	+08°05′	2:00	3:10	2 22 W	+8°11′	Fe/–	11-11

Spectr. Temp. ..67.5°F..... Dome Temp./Hum. 65°F / 69%.. Transparency Conditions occasional cloud.....

Focus ..499.....

Spectr. Temp. ..... Dome Temp./Hum. ..../..... 306

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.68	150/1.0	II-O	A			OK
40/40	3-5"	5.8	M5-6II	BC	830/.68	150/1.3	II-O-E	B	M STD Std Vel	Exp=12m	Fine
250/250	"	8.9	M7.5-8	"	"	"	"	A	M STD	*Approx comp times Exp=132m	weak
							"				
300/345	3"	8.5	M6-M8e	"	"	"	"	B	CW MIRAS	Exp. Time 130m	Fe wk Fine
30/45	3"-5"	7.6	M5e-M8e	"	"	"	"	B	"	T=61° Se+5°1 Exp=10m	Fe wk Fine

307 Thurs Fri

Date July 12 22 Observers R.m. - Tu

Emulsion Batches: IIa-E 12981 - 29062

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Ex
46875F	Focus Test					0 0	+4 34	Fe/—	3'
46875	HD 16 1096	17 - 38.5	+4° 37	20:42	20 47	2h 34 E	+4° 34	Fe/—	17-
46876	HD 149363	16h 27.1	-6° 52	20 58	23:32	0h 21 W	-6 07	Fe/—	12-12
46876T	Spot Calib 46	46374-			15 min 15%	D4 3900	D3 4300	D2 4810	
46877	HD 183399 = UHa 6	19h 25.0	-7° 15	23.42	02 42	1h 35 W	-7° 06	Fe/—	12-
46878	HD 20316 = UHa 57	21h 54.4	+37° 49	02 46	03 44	0h 47 W	-32° 08	Fe/—	12-

Spectr. Temp. ..66.5..... Dome Temp./Hum. 68°F/66% Transparency Conditions v. s.l. haze..v. l. tr. cir.....

Focus .....499.....

Spectr. Temp. ..61.°F..... Dome Temp./Hum. 56°F/81% 308

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/68	BS	IIa-O-E	B			weak OK
-/37	1"	3.7	K2III	"	"	"	"	A	std sel		Fe wk Fine
-/241	1-2"	7.7	B0III	"			"	E	Runaway		Fe sl wk vsl wk
							"			Lab cal 75T	
00/320	2"	~8.5	G3III	"	"	"	"	B	Cyn/Grav	T=63° 1" missing at blue end Focus 5 W	Fine
00/209	1"	6.2	F2	"	"	"	"	A	Cyn/Grav		Fe sl wk Fine
		46867-46877 daylight					8 min @ 68°F		July 2		

309 Fri-Sat 8h 69°

Date July 2-3/82 Observers Gris-Tn

Emulsion Batches: IIaD-E 12081 - 02072

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
46879 *	HD 197419	20h 38.5m	+35° 06'	22:33	0:55	1h 21m E	+35° 24'	Fe/-	12-12-1
46879T	Spot Calib Fe	4838 - 82		15min @ 15V		UA 3400	D3 4150	U2	
46880	HD 203064	21h 14.7m	+43° 31'	1:00	1:34	1h 17m E	+43° 52'	Fe/-	12-12-
46881	HD 210839	22 08.1	+58 55	1:40	2:28	1h 16m E	+58 55	Fe/-	12-12-
46881F	Focus test					"	"	Fe/-	32-3
46882	HD 186791	19h 41.5m	+10° 22'	2:40	2:51	1 32W	+10° 34'	Fe/-	18-1
46883	HD 188439	19 50.1	+47 33	2:58	3:54	2 28W	+47 46	Fe/-	12m-

Spectr. Temp. 70°F Dome Temp./Hum. 64°F/69% Transparency Conditions cloudy

Focus 498

Spectr. Temp. 66°F Dome Temp./Hum. 61°F/81%

310

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
20/350	3"-4"	6.52	B2Ve	B.C.	830/.68	BS	IIaO-E	A	Runaway*	cloud	
							"				
60/180	3"	4.98	O8V	B.C.	830/.68	BS	"	B	Runaway*	cloud	
30/178	2"-3"	5.29	O6f	"	"	"	"	A	Runaway*		
				"	"	"	"	B		*1" missing T=66 F=498	
20/223	2"	4.1	K3II	"	"	"	"	A	Std. Velocity		
30/351	1-2"	6.18	B0.5IIIp	"	"	"	"	B	Runaway*		
								*All pencilled plate #'s are N-1 ie 46878 instead of 79			

311 Sun-Mon

Date July 9-5 1916 Observers Kn-Fk

8m 69° Emulsion Batches: IIaO-E 12081 – 02072

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
4615F	Focus Test					2° 32 E	+4° 34	Fe/–	2½
4616	[illegible]	17h 38.5	4° 37	20 39	20 45	2 25E	+4° 35	Fe/–	19-14
4617	HD 172365	18h 34.7	+5° 18	20 [illegible]	53 33	0 32E	+5° 17	Fe/–	1-[illegible]
4618 ✓	Spectrum [illegible]	[illegible]-90		[illegible]	[illegible]	04 34 0	03 +3.0	[illegible]	
4619	HD 182394 [illegible]	19h 20.0	-7° 15.0	23 · 36	01 35	6 40W	-70 05	Fe/–	1-23
4620	HD 203156 = [illegible]	21h 15.4	[illegible]	01 38	03 08	0 24 W	-38° 11	Fe/–	1-4
4621	HD 194293 = [illegible]	20h 25.3	36° 6'	03 11	03 27	01 33 W	136° 0	Fe/–	[illegible]
[illegible]	HD 203064	21 14.7	+43 31	[illegible] 30	03 39	00 55W	+45° 52	"	19-9
4623	HD 194093 = TC 45	20h 19.6	+34° 56	03 41	03 48	02 08W	+40° 11	Fe/–	19-4

Spectr. Temp. 171°F ..... Dome Temp./Hum. 65°F/70% ..... Transparency Conditions hazy → fine .....

Focus ..... 498 .....

Spectr. Temp. 166°F ..... Dome Temp./Hum. 59°F/90% .....

312

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	533/66	BS	IIIaO	A		71°F 498 focus	
40/40	1"	3.9	K2III	"	"	"	IIIaF	B	Sky Vel		Fine
24/300	1"	7.2	F2	"	"	"	IIIaF	A	Cap/Ecas		Fine
							"				
9/404	1"	VR-1	OB5	"	"	"	"	"	Cph/Ecas		VS/wk
20/80	1.2"	6.2	F2	"	"	"	"	A	"	2pcs	
8/30	1"	4.9	K2III	"	"	"	"	B	Cph/Ecas		S/str
70/35	1"	4.98	O8V	"	"	"	"	A	Runaway		Fine
70/50	1"	3.	F8Ib	"	"	"	"	B	Cph/Ecas		Fine
							note				
							More IIaO needed		in Vacuum in plane		

313 Mon-Tues

Date 1 4/5 5-6/82 Observers Wlr-Tn

Emulsion Batches:
IIa0-E 12081-05072
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46891	HD 182439	19 50.4	+47 33	21 13	00 13	01 01 E	+47 46	Fe/-	14 14½
46891F	Spot Calib	for 46891	-92	1½ min	@ 15V	D4 3900	D3 4300	D2 4810	
46892	HD 203156	21 15.4	+37 49	00 19	01 52	0 99 E	+38 08	Fe/-	14 14½
46892F	Focus Test					"	"	Fe/-	34 34

Spectr. Temp. ..73°F..... Dome Temp./Hum. 66F/80% Transparency Conditions ...Hazy-cloudy.....

Focus .....498.....

Spectr. Temp. ..68°F..... Dome Temp./Hum. 62F/90% nice lunar eclipse between clouds 314

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
200/350	2-3	6-18	Focus	BC	830/68	BS	IIaO-E	A	Runaway	15⁴ half very slow Flox?	Focus? exp dr
							IIaO-E				
200/90	1"	6-17	F2	BC	830/68	BS	IIaO-E	A	Cepheus	some cloud T. 67°F	good Fe sl wk
				BC	830/68	BS	IIaO	A		missing 1"	

315 Tues-Wed

Date ~~Jul 6-7/82~~ Observers T-Wh

8m 68° Emulsion Batches: IIaD-E 12081 - 05072

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46893	HD 122742	13 58.6	+11 16	21 13	22 59	3 38 W	+10 53	Fe/—	16 84
46893	Spot Check for 46893-97			15 min @ 5V		D4 3900	D3 4300	D2 4810	
46894	HD 137480	17 18.5	+10 09	23 05	00 00	1 20 W	+39 59	Fe/—	16 84
46895	HD 161096	17 38.5	+4 37	00 04	00 12	1 11 W	+4 34	Fe/—	228-3
46895H	Focus Test					"	"	Fe/—	
46895T	Focus Test					"	"	Fe/—	
46896	HD 161096	17 38.5	+4 37	00 25	$00^h 33^m$	$1^h 32^m$ W	"	Fe/—	16-12
46897	HD 203156	21 13.4	+37 49	00 39	02 45	0 09 W	+38 11	Fe/—	144

Spectr. Temp. 76°F Dome Temp./Hum. 776/82% Transparency Conditions sl. hazy

Focus 498

Spectr. Temp. 75°t Dome Temp./Hum. 71°t/93%

316

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
20/150	<1½"	6.8	GE V	BC	1200/-.025	ES	IIaO-E	A	Fe-Sp KK	1" missing off h. hood	
							"				
20/200	<1"	6.20	dF8	BC	1200/-.025	ES	"	B	SB-Bl/Ly		good
20/55	<1"	3.9	F2 II	"	"	"	"	A	stable/		V sl wk Fe sl wk one side
				"	"	"	IIaO	B		T=755 set 498	
				BC	830/68	"	"	B		T=755 set 497	
40/45	1"	3.9	K2 II	"	"	"	IIaD-E	A	stable		Fe sl wk Fine
200/260	1-2"	6.17	F2	"	"	"	"	B	Cepk-Rem	Cloud	Fe sl wk Fine

317 Wed Tues

Date 7.8.82 Observers In - Wis

Emulsion Batches: IIaO* 12081 - 07072 * Right out of frig & very dry box 1

19 128

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
16898	HD 187567	19 45.4	+7 39	21 15	23 50	1 14E	+7 53	Fel-	17-22
16898T	Spec Tab for 16898-16900			15 min @ 15V		D4 9200	D3 9200	D2 45.0	
16899	HD 203156	21 15.4	+37 49	23 55	01 55	0 38E	+38 11	Fel-	19-19
16900	HD186791	19 41.5	110 22	01 59	0205	1 05W	+10 33	Fel-	24
16900F	Focus Test					"	"	Fel-	28-28

Spectr. Temp. ...80°F..... Dome Temp./Hum 77°F/82%.. Transparency Conditions ..cloudy, partly.....

Focus ....4.95.....

Spectr. Temp. ..73.5°F..... Dome Temp./Hum 67°F/95%

318

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
30/500*	3"6+	6.42	B2.5II	BC	830/168	BS	IIaO*	A	Runaway		Fine
							"				
30/200*	3"	6.17	F2	BC	830/168	BS	"	B	Cph-Rm	Set 496 T-77°	V sl smr. Fe sl wk
3/60	3"	4.1	A3II	"	"	"	"	A	stdvel	Fe fine	Fe s/wk Fine
				"	"	"	IIaO	B			
								*	Re-exposure was multiple hit		
									Flo count may not be reliable		
									Star is some temp. variable		
									Suspect we have more for exposure because indicate.		

Comparison Type/Filter Ex...

319 Thurs - Fri

Date July 8-9/82 Observers Crw-Tn

8m 68s

Emulsion Batches: IIaO-E 12081 ~07072

20 183

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46901F	Focus Test					0 20W	+4 34	Fe/—	28
46901	HD 161096	$17^h38^m.5$	+4°37′	21:05	21:27	2^h34^mE	+4°37′	Fe/—	19-
46902	R SER (HD 141850)	$15^h46^m.5$	+15°26′	21:34	00:55	3^h54^mW	+15°12′	Fe/—	15-15
46903	R AQL (HD 177940)	$19^h01^m.5$	+08°05′	1:01	03:14	2^h58^mW	+8°10′	Fe/—	15-15-
						D4	03	D2	
46903T	Spot Calc	for 46901	-04		15 min @ 15V	3400	4300	4200	
46904	30 PSC (HD 224935)	$23^h56^m.8$	−6°34′	3:21	4:04	1^h07^mE	−6°05′	Fe/—	21-2
46904T1	Spot cal'n	D4 4300	4m	batch 12081	unevac				
T2	"	"		20012	unevac				
T3	"	"		12081	24hr vacuum				
T4	"	"		20012	24hr vacuum				

Spectr. Temp. ...+76°F..... Dome Temp./Hum. 67°F/67% Transparency Conditions ..some clouds.....

Focus ....4.97.....

Spectr. Temp. ....63.5°F... Dome Temp./Hum. 58°F/85%

320

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
							IIaO	A		stellar uweak	v s/ blue
40/40	5"	3.9	K2III	B.C.	830/0.68	150/.3	IIaO-E	B	Std. Velocity	Exp=22m strong good	fine
20/400	6" 2"	8.4	M6e-M8e	"	"	"	"	A	Crw-MIRAS	Exp=201m	good
20/400	2"	7.6	M5e-M8e	"	"	"	"	B	"	67°F / focus .497 Exp=133m	fine
							"				
40/35	1"-2"	6-0	M3III	BC	830/.68	150/.3	"	A	M standard	Exp=43m	fine Fe s/ wk
							IIaO				
							IIaO				
							IIaO				
							IIaO				
	batch 2002 slightly slower than 1208										

321

Fri - Sat

Date 4/19/10/82 Observers Gis - Tm

Emulsion Batches: 8^m 68° IIaO-E 12081 - 08072 18 158

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46905F	Focus Test					$2^h 18^m$ E	$+4° 34'$	Fe/-	28-28
46905	HD161096	$17^h 38^m.5$	$+4° 37'$	20:35	20:39	2 11 E	+4 34	Fe/-	18-18
46906	HD191566	20 05.5	+35 11	21:06	0:59	0 16 E	+34 26	Fe/-	14-14
46906T ✓	Spot calc	fo.	46905 -06		15 min @ 15V		D4 3900 D3 4300	D2 4810	

Spectr. Temp. 76°F ..... Dome Temp./Hum. 75°F / 7% Transparency Conditions ... Hazy ... sl. cloudy .....

Focus ... 496 .....

Spectr. Temp. 74°F ..... Dome Temp./Hum. 69°F / 9% ..

322

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	8304/68	BS	IIaO	A			ok
0/45	1"	3.9	K2III	"	"	"	IIaO-E	B	Std. Velocity		fine
0/335	2"	7.26	B0.5III	"	"	"	"	A	Runaway *	cloud	Fe sl. wk, some flocc crop de
							"				

Emulsion Batches:
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.....

Date 1982 JUL 11/12 SUN/MON ..... Observers Blu - Tu .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Ex
46907F	Focus Test					00 05 W	+22° 20'	Fe/-	23-2
46907	~~H0184927~~								

Spectr. Temp. 78°F........... Dome Temp./Hum. .... Transparency Conditions ....

Focus ..496..................

Spectr. Temp. .... Dome Temp./Hum. ....

Comparison Type/Filter	E	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/-	[illegible]					BC	830/.68	BS	IIa-OE	A		T = 78°F	ok

325 Mon-Tues

Date 1956 Jul 12-13 Observers Ku-Tu

Emulsion Batches: IIaD-E 12081 – 08072

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Ex
46907	HD160461	17h 36.5	+9° 34	21:20	21:26	1h 12E	+9° 34	Fe/-	2-
46908	HD183344=γ Aql	19h 54.0	-7° 15	21:32	02:02	1h 39E	-7°	Fe/-	20-
46907F	Spectra for 46907	-09		15 min (D) 15V	D4 B+W	D3 +W	D2 4810		
46909	HD203156	21h 15.4	+37°49	2:08	3:51	1h 38W	+38°08	Fe/-	20-2
46909F	Focus test					1h 38W	+38°08	Fe/-	35-

Spectr. Temp. ...+76°F..... Dome Temp./Hum. +68°F/80% Transparency Conditions ..Some haze.....

Focus .....496.....

Spectr. Temp. ..+65.5°F..... Dome Temp./Hum. +58°F/98% good Aurora 326

Comp. Type/Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe	30/31	2"	3.9	K2	BC	330/.68	BS	IIaO-E	B	Std Vel	*Approximate exp of Fe arc	Fine
Fe	100/100	3-5"	7.1	F1	"	"	"	"	A	Copia/Evans	Fe arc OK. Fe adjacent Flexure →	Fe wk OK
								IIaO-E				
Fe	453		6.2	F2	"	"	"	"	B	Copia/Evans	T= 68°F 499	Fe wk OK
Fe					"	"	"	"	H	Set 499	T= 65.5°F Fe wk →	cont sl blue

327

8"-68°

Emulsion Batches: IIa-O-E 12081 - 08072

Date Tues-Wed, July 13-14 1982 Observers G.S. - T.m.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
46910F						0h 00m	+15° 00'	Fe/-	35-35
46910	HD 161096	17h 38.5m	+4° 37'	20:32	20:37	1h 57m E	+4° 34'	Fe/-	22-21
46911	HD 191566	20 05.5	+35 11	20:42	23:38	1h 21m E	+35° 26'	Fe/-	16-16
46911T	Spot + Calib	for 46910-13			15 min	@ 15V	D4 3900 D3 4300	D3 4810	
46912	HD 192281	20h 09.0m	+39° 58'	23:42	1:50	0h 49m W	+40° 13'	Fe/-	16-16
46913	HD 195907	20 29.0	+31 19	1:55	4 08	2 45 W	+31° 36'	Fe/-	16-16

Spectr. Temp. 73°F ..... Dome Temp./Hum. 70°F / 70% Transparency Conditions ... Good - sl haze .....

Focus .. 498 .....

Spectr. Temp. ..... Dome Temp./Hum. 65°F / 82% Excellent Aurora at 21 hrs to south of Zenith

328

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.68	BS	IIaO	A		no stellar discard	
0/50	1"	3.9	K2III	"	"	"	IIaO-E	A	Std. Velocity		Fine Fe strong
0/400	1"	7.26	B0.5III	"	"	"	"	B	Runaway *	dust expo de fuzzy, Fe sl str.	
							"				
0/350	1"	7.93	O5f	BC	830/.68	BS	"	A	Runaway *	T = 72°F dust expo de sharper, v sl flexure	good
0/290	<1"	7.85	B1.5Ve	"	"	"	"	B	Runaway *	T = 70° F = 499 ← 1.5 inches missing	

329

Date Wed-Thur. Jul. 14-15. 1982 Observers . Bln.-Fln.....

Emulsion Batches:
IIaO-E...4081-13072
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
46914	HD 184927	$19^h 31.^m6$	+31° 04'	22.33	03:15	$2^h 56^m$ W	+31° 14'	Fe/—	16-16
46914T	SPOT CALIBRATION for 46914-				15^m @ 15V	D4 3900	D3 4300	D2 4810	

Spectr. Temp. ..75°F..... Dome Temp./Hum. 68°F/H=82% Transparency Conditions hazy-T.-partly cloudy.....

Focus .....496..... 330

Spectr. Temp. ..69°F..... Dome Temp./Hum. .65°F/H=82%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
60/418		B= 730	B2Ip	BC	830/.68	BS	IIaO-E	A	Bln-He*		flox?
							IIa-O E				

331

Date Thu. Fri. 2-3 July 15-16 1982 Observers Bln - Flm

Emulsion Batches:
IIaO-E 12081 - 13072
.....
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
46915	HD 184727	19h 31.6m	+31° 04'	22:49	01:20	1h 02m W	+31° 14'	Fe/—	16-1/2-
46915T ✓	SPOT CALIBRATION		for 46915		15" @ 15V	D4 3900	D3 4300	D2 4810 ?	

Spectr. Temp. ..78°F..... Dome Temp./Hum. ..75°F/95% Transparency Conditions .V..Hazy.....

Focus .....4%.....

Spectr. Temp. ...77°F..... Dome Temp./Hum. ..72°F/97%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
3c/123		B =730	2I$_p$	BC	830/.68	B5	IIaO-E	A	Bln-He*	Blah!	weak
							IIa-OE				

333

Date Sat. Sun. Feb 12-18. Observers ..H.R.-R.....

Emulsion Batches:
IIIa J a 6 . 09061-17072
IIIa O-E 12081-13072
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46916	HD 159561	17 30.3	+12° 38'	23:06	23:20	01h 11W	+12° 32	Fe/—	25-25
46917	"	"	"	23:21	23:31	01h 21W	"	"	25-25
46918	HD 182640	19 20.5	+ 2 55	23:34	00:10	00h 11W	+03°04	"	25-25
46918T	SPOT CHECK FOR PLATES		46916-		15 MIN @ D4	@ 17.5U 3900	@ 15U 4300	@ 9U 4500	
46919	HD 186791	19 41.5	+ 10 22	00:15	00:20	00 00		Fe/—	22-22
46920	HD 196524	20 32.9	+ 14 15	00:23	00 34	00 38E		Fe/—	22-22
46920T	SPOT CHECK FOR PLATES		46919-		15 MIN @ 15U	@ D4 4500	@ D3 4300	@ D4 3900	
46921	HD 217782	22 58	+42 13'	01.05	02:21	01h 16E		Fe/—	15-15
46921F	Focus test							Fe/—	35-35

Spectr. Temp. 72°F ..... Dome Temp./Hum. 73°F ... 99% Transparency Conditions . sl. haze .....

Focus ..... 495 .....

Spectr. Temp. 75°F ..... Dome Temp./Hum. 71°F .....

334

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/200		2.2	A5 III	B.C.	1200/-.025	BS.	~~IIIa-J~~ IIa-O	A	Asm Sp / ICK	Broken 1" ft } high fog	fine
30/120		"	"	"	"	"	"	B	"		good
40/180		3.7	F0 IV	"	"	"	"	A	"		good, very uneven
							"				
30/50	3"	4.1	K3 II	"	"	"	IIaO e	B	Std Vel	F to 496 T = 76°	good
30/40		9.0	F5 IV	"	"	"	IIaO e	A	Asm Sp/KK		good
							~~IIa-E~~				
30/200	4"+	5.7	A2	"	830/.680	BS	IIaO C	B	"	clouds, exp. meter erratic	fine
					"	"	"	A			
		IIIaJ	4d	8% H_2	at ambient (~ 25°C)						

335

Date Mon: Tues, July 19-20/82 Observers Gus - Ri

Emulsion Batches:
IIaO E 12081-18072
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46922F	Focus test					0h 05m W	+4° 34'	Fe/—	35-3
46922	HD 161096	17h 38.5m	+4° 37'	22:05	22:14	0h 04m W	+4° 34'	Fe/—	22-2
46923 ✓	HD 197419	20 38.5	+35 06	22:18	0:55	0h 14m E	+35° 24'	Fe/—	16-3
						① D4	② 3	③ D2	
46923T	SPOT CAL FOR PLATES 46922-23				15 MIN @ 15 VOLTS	3900	4300	480	

Spectr. Temp. 79°F ..... Dome Temp./Hum. 74°F/77% Transparency Conditions ..Cloudy.....

Focus ..496.....

Spectr. Temp. 73°F ..... Dome Temp./Hum. 68°F/89%

336

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C.	830/.68	BS	IIaO	A		T=79°F F=496	
40/40	3-4	3.9	K2II	"	"	"	IIaO-E	B	Std. Velocity	T=77°F F=496	
00/148	4"	6.52	B2Ie	"	"	"	"	A	Runaway *		5' wk
							IIaO-E				

337

Date Tues.-Wed., July 20-21/82 Observers GHS - RJ

Emulsion Batches:
IIaO-E 12081 - 18072
.....
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46924F	Focus test					0h 05m W	+16° 46'	Fe/—	35-3
46924	HD 161096	17h 38m.5	+4° 37'	20:25	20:31	1 35 E	+4° 34'	Fe/—	22-2
46925	HD 189957	19 57.6	+41 43	20:52	00:52	0 28W	+41° 56'	Fe/—	16-16-1
✓							① D4 ② D3 ③ D2		
46925T	SPOT CNLN FOR PLATES	46924-27			15MIN @ 15VOLTS		3900 4300 4810		
46926	HD 203156 (HR 8167)	21h 15m.4	+37° 49'	00:56	02:18	0 36W	+38° 09'	Fe/—	16-16
46927	HD 219188	23 08.9	+4 27	02:25	04:18	0 42W	+4° 54'	Fe/—	16-16
46927F	Focus test					0 42W	+4° 54'	Fe/—	35-3

Spectr. Temp. 76°F ..... Dome Temp./Hum. 72°F/77% Transparency Conditions ... v. good .....

Focus ... 496 .....

Spectr. Temp. 66°F ..... Dome Temp./Hum. 60°F/92% 338

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C.	830/.68	BS	IIaO-E	A		T=76°F	
-0/40	3"	3.9	K2 III	"	"	"	"	B	Std. Velocity.		fine exp ok flexure?
0/285	3-4	7.83	B0 III	"	"	"	"	A	Runaway ★	T=76° F=497	
							IIaO-E				
/200	4	6.17	F2	BC	830/.68	BS	IIaO-E	B	Cepheid/Evans	T=68° F=499	fine
/220	3-4	7.01	B0.5 I	"	"	"	"	A	Runaway ★	T=67°	good
				"	"	"	"	B		T=66°F F=499	

339

Date Wed. Thurs. Fri. 21 22 ✓ 1982 Observers Fla. Ri.....

Emulsion Batches:
IIaD-E..120.81-.18072
*IIIaJ-E...120.81-.21072
UV Room for 3440.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Ex
46928F	Focus Test					0h 05m W	—	Fe/—	35
46928	HD 161096	17h 58.5m	+4° 37'	20:25	20:29	1h 34 E	+04 35'	Fe/—	22-2
46929	HD 165174 (HR 6754)	17h 59.6m	+1° 55'	20:34	21:18	01h 05E	+01° 54'	Fe/—	16-16
46930	HD 165174	17h 59.6m	+1° 55'	21:19	21:50	00h 34E	+01° 54'	Fe/—	16-16
46931	HD 165174	17h 59.6m	+1° 55'	21:54	22:42	00h 18W	+01° 54'	Fe/—	16-16
46932	HD 165174	17h 59.6m	+1° 55'	22:44	23:29	01h 06W	+01° 54'	Fe/—	16-16
46932T ✓	SPOT CAL FOR PLATES 46928-32			15 MIN @ 15 U.L.		① D4 3900	② D3 4300	③ D2 4810	
46933	HD 165174	17h 59.6m	+1° 55'	23:31	00:09	01h 46m W	+01° 54'	Fe/—	16-16
46934	HD 165174	17h 59.6m	+1° 55'	00:11	01:06	02h 43m W	+01° 54'	Fe/—	16-16
46935	HD 208156 (HR 8367)	21h 16.4m	+37° 49'	01:18	02:24	00h 46W	+38 07	Fe/—	16-16
46936	HD 214930	22h 36.6m	+23° 19'	02:28	04:15	01h 15m W	+23 °44	Fe/—	16-16
46936T ✓	STEP CAL FOR PLATES 46933-36			15 MIN @ 15 U.L.		① D4 3900	② D3 4300	③ D2 4810	

Spectr. Temp. ..76°F..... Dome Temp./Hum. 73°F/H=62% Transparency Conditions thin cirrus clouds around....
Focus ....496..... clouds thickening after 0120
Spectr. Temp. ..72°F..... Dome Temp./Hum. 65°F/H=89% 340

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.68	85	IaO-E	A			
/40	2	B= 3.9	K2III	"	" / "	"	IaO-E	B	STD-VEL		fine
/160	2	B= 6.15	G5III	"	" / "	"	"	A	Var Rin/Fin	BROKEN 2 PIECES	
/160		6.15	G5III	"	" / "	"	"	B	"	T=76°F; a little arc in sp.	
/150		"	"	"	" / "	"	"	A	"		arc weak
/150	~2	"	"	"	" / "	"	"	B	"	T=75°F	
							IIIaO-E				
/160		6.15	G5III	"	" / "	"	IIIaO-E	A	"		
/60		"	"	"	" / "	"	* "	B	"	T=74°F, F=497	arc weak
/425		B =6.17	F2	"	" / "	"	* "	A	Cepheid/Evans	BROKEN 2 PIECES	
/250	3	B =1.39	B2IV	"	" / "	"	* "	B	Runkle/A.J.*	T=73°F. Cloud.	arc weak

34

Date Thurs Fri July 22/23 Observers KK-Ri

Emulsion Batches:
Iaoc 12081-21072

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
46937F	Focus test							Fe/—	35 s
46937	HD 137909	15 23.7	+29° 27	21:46	21:58	2m 15s W	+29 09	Fe/—	16 16
46938	HD 137107	15 19.1	+30° 39'	22:01	22:46	34 07 W	+30° 21	Fe/—	16-16
46939 ✓	HD 183912	19 26.7	+27° 45	23:03	0:00	0 14E	+27 55	FeNe / WR604+WD10	10-10
46939T	SPOT CAL FOR PLATES 46937 - 46941			15MIN@15VOLTS	② D4 3900	③ D3 4300	⑤ D2 4810		
46940	HD 187642	19 45 54	+08° 36	00:04	00:10	004 05W	+08 49	FeNe / WR604+WD10	15 10
46941	HD 215182	22 38.3	+29° 42	00:18	01.39	01m 18E	+30° 07'	Fe/Ne / WR604+WD10	10-10
46941T	SPOT CAL FOR PLATES 46939-46941			15MIN @	15VOLTS	① D1 3600	③ D3 4100	D2 ⑤ 4300	1m
46941F	Focus Test							FeNe	30-3

Spectr. Temp. ...76°..... Dome Temp./Hum. ..70°F...77% Transparency Conditions ..Streaks.....

Focus .....495.....

Spectr. Temp. ..... Dome Temp./Hum. ..67°F...87%

342

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	1200/-.025	B1	IIaO	A		No STELLAR-DISPERSION	
40/60	3"	3.93	FOp	B.C.	1200/-.025	B.S	IIaOc	B	Atm Sp/KK		weak arc
30/131		5.58	G2V	B.C.	1200/-.025	B.S	IIaOe	A	"		v. wk arc
0/120		4.2	ks11+ B	B.C.	1200/.200	150/.5	IIaO-E	B	"	T=75°F	could be stronger
		"					IIaO-E				
0/80		0.99	M+V	B.C.	1200/.200	150/.5	IIaO-E	A	"	Altair T=93°F F 496	strong enough
0/150		3.8	G8III +F	B.C.	1200/.200	150/.5	IIaO-E	B	"	BROKEN 2 PIECES some clouds	
							IIaO-E			clouded in	
				BC	1200/.2	150/	H1E6fg	B		72°F 496	strong

343

Date 23/24 JUL 1982 FRI/SAT Observers BM-RI

Emulsion Batches:
IIaJ-E 12081 - 22072
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
46942	HD 184927	$19^h 31^m.6$	+31° 04'	22:53	03:58	04:11 W	+31° 15'	Fe/-	16-K
46942T ✓	SPOT CAL FOR PLATES 46942				15 MIN @ 150 LES	⊘ 04 3900	⊘ 03 4300	⊘ 02 4810	
46942F	FOCUS TEST							Fe/-	35-3

Spectr. Temp. 75°F ..... Dome Temp./Hum. 73°F/75% .. Transparency Conditions ... Good .....

Focus ... 49B .....

Spectr. Temp. 69°F ..... Dome Temp./Hum. 64°F / 96% 344

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
00/242	3-4	7.30	B2Vp	BC	830/.68	RS	IIa-OE	A	Blu-He *	Start delayed 2.5 hr by equipment problems	
							IIa-E			WRONG SLICER USED	
				"	"	"	IIa-F	B			

345

Date Sat. Sun. July 24-25 Observers ...Rm-Rv.....

Emulsion Batches:
Tech-R. 120.81-422.72....
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
46913	HD 203156=HR8157	21h15.4	+37°49	23:01	2:20	0h54m	+38°08	Fo/—	16
46945T	Spot Calib for 46943			15 min	@ 15v	2h 00	03 +300	02 +5½	
46944	HD 203156=HR8157	21h15.4	+37°99	2:23	9h 18	2h53W	+38°08	Fo/—	16
46944F	Focus Test					"	"	Fo/—	

Spectr. T
Focus...
Spectr. T
ow Mr

Spectr. Temp. ...76°F..... Dome Temp./Hum. ...63°F....87% Transparency Conditions ...SOME CIRRUS CLOUDS.....

Focus .....497.....

Spectr. Temp. ..... Dome Temp./Hum. ....°F....94%

396

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
20/386	2-3	G-2	F2	BC	830/.68	B5	IIaO E	A	Cepheids/Eclipse	Cirrus & scattered thin wisps still visible	sl wk uneven
							IIaO E				
10L/29		G-2	F2	BC	830/.68	B5	IIaO E	B	Cepheids/Eclipse	73°F = focus 497 1" Dark Clouds	
				"	"	"	IIaO E	A		71°F	

347

Sun - Mon

Date July 25-26/82 Observers Cow - Ri

Emulsion Batches: 68 Tech-E 12081-12072

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46945	R SER (HD 141850)	$15^h46.^m5$	+15°26′	20:33	00:07	3^h58^m W	+15°12′	Fe/—	15-3
							⊙ Δ4	⊙ Δ3	⊙ Δ2
46945T ✓	SPOT CAL FOR PLATES 46945-				15 min @ 15 VOLTS		3900	4300	4810
46946	R AQL (HD 177940)	$19^h01.^m5$	+8°05′	00:13	01:17	2^h06^m W	+08°12	Fe/—	15-30
46946F	Focus test							Fe/—	35-35

Spectr. Temp. ...78°F..... Dome Temp./Hum. 75°F/92% Transparency Conditions ... CLEAR (some haze) ..

Focus .....496.....

Spectr. Temp. ..... Dome Temp./Hum. 71°F / 82% ...

348

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/390	2"-3	8.4	M6e -M8e	RC	830/.68	150/.3	IIaO-E	A	GW-MIRAS	Exp = 214m	sl weak
							IIaO-E				
400/460	2"-3"	7.6	M5e -M8e	"	"	"	"	B	"	T=76°F } STOPPED by CLOUDS	weak
				"	"	150/1.0	IIaO-E	A		T=75°F F.496	

349

Date 1982 July 26/27 Observers KK - Ri

Emulsion Batches:
IIaOe 12081 - 22072
IIIaJ 09061 - 22072 8h40m

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46947F	FOCUS TEST							Fe/-	35 35
46947	HD 137909	15 23 7	+29 27	20:35	20 55	1:27W		Fe/-	16 16
46948	HD 159561	17 30.3	+12 38	21:00	21:36	003W		Fe/-	30 30
46948T	SPOT CAL FOR PLATE		46947-		15 MIN @ 15 VOLTS		D4 3900 D3 4300 D2 9800		
46948TL	" " "	"	46948		15 MIN @ D4	3900	D4 A.5U D4 15U 4300		D4 A. 4210
	July 27/82								
46948T3	Comp lamp after focal [illegible]							Fe/-	10
T4								FeNe/-	10

Spectr. Temp. 78° ..... Dome Temp./Hum. 72° / 75% Transparency Conditions scattered cloud .....

Focus 495 .....

Spectr. Temp. ..... Dome Temp./Hum. 350

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C.	1200/-.025	B.S.	IIaO-E	A			v sl blue
40/60		3.9	F0p	"	"	"	"	B	AsmSp/KK		fine
10/116		2.2	A5III	"	"	"	IIIaJeb	A	AsmSp/KK	Clouds some fog	fine
							IIaO-E				
							IIaJeb				
				BC	1200/-.025	BS	IIaO	A			good
				"	"	"	"	B			V. strong

Comparison
pe/Filter

351

Date WED.-THURS. JULY 28-27 Observers ...G.I.S.-R.....

Emulsion Batches:
Tech-E..12081-26072
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46949F	FOCUS TEST							Fe/—	20/25
46949	HD 161096	17h 38m.5	+09° 37′	20:15	20:23	1h 12m E	+44° 32′	Fe/—	7-7
46950	HD 192281	20 09.0	+39 58	20:30	00:27	0h 29m W	+40 12	Fe/—	5-5-5
46950T ✓	SPOT CAL FOR PLATES 46949-				15 MIN @ 15 VOLTS	① D4 3900	② D3 4300	③ P2 4810	
46951	HD 201910	21h 07m.5	+40°47′	00:33	03:22	2h 21m W	+41° 06′	Fe/—	5-5-5
46952	HD 210839	22 08.1	+58 55	03:28	03:46	1 44 W	+59°17′	Fe/—	5-5-5
46953	HD 4142	00 38.9	+47 19	03:50	04:20	0 14 E	+47° 43′	Fe/—	5-5-5
46953F	FOCUS TEST					0 14 E	+47° 43′	Fe/—	20-25
46953F2	FOCUS TEST NEW CORRECTOR PLATE							Fe/—	10-15
F3	"	"						Fe/—	10-10
F4	"	"	"					Fe/—	15± 15±
T1	Comp. exposure							FeNe wr 6	10

Spectr. Temp. ....70°F..... Dome Temp./Hum. ...66°F...82% Transparency Conditions ...good.....

Focus .....498.....

Spectr. Temp. 65°F..... Dome Temp./Hum. ...60°F...95%

352

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Hg lines diff not so out				B.C.	830/.68	BS	IIaO	A			
0/40	3"	3.9	K2III	B.C.	830/.680	B.S.	IIaO-E	B	Std 2nd		fine sm sl str.
00/330	3-4	7.93	05f	"	"	"	"	A	Runaway*	T=69°F F=499	
							IIaO-E				
0/350		7.27	B5V	B.C.	830/.680	B.S.	IIaO-E	B	Runaway *	T=67°F F=500	
0/70		5.29	06f	B.C	830/.680	B.S.	IIaO-E	A	RUNAWAY*	T=65°F	
0/70	3-4	5.53	B5I	BC	830/.680	B.S.	II.O-E	B	Runaway *		
				B.C.	830/.680	B.S.	IIaO	A		T=65°F T=500	
				"	"	"	"	A		T=66°F F=500	blue
				"	"	"	"	A		T=68° F=505	ok
Hz stayed on both times				"	"	"	"	B			good
Difficult to start Hollow cathode								B			sl str.

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Date THURS-FRI JULY 29-30 Observers Rm - Ri

Emulsion Batches:
Tech-E 12081 - 26072
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
46954F	FOCUS TEST							Fe/—	10-10
46954	HD 136202	15 14.2	+02° 04'	20:15	20:56	1h 41W	+01° 50	Fe/—	3-3-
46955	HD 118439	19h 50.1	+47° 33'	21:09	22:19	1h 31W	+47° 45	Fe/—	3-3-
46955T	Spot Calib for plate 46954	15m @	15V	3900 D4	4300 D3	P2 4810			
46956	HD 185344 = V Hyl	19h 34.0	-7° 15.0	22:30	01:15	2:00 W	-07-04	Fe/—	3-33
46957	HERM 7 = HD 203156	21h 15.9	+37° 49	01 32	9:01	2h 56W	+38° 10	Fe/—	3-3-
46957F	FOCUS TEST					0h 43W	+5° 31	Fe/—	15-1

Spectr. Temp. ....73°F..... Dome Temp./Hum. ..70°F...78%... Transparency Conditions ..SCATTERED...CLOUDS.....

Focus .....303.....

Spectr. Temp. ..... Dome Temp./Hum. ..63°F...88%... NEW CORRECTOR PLATE IN 354

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C.	830/680	B.S	IIIa-E	A			
30/ 5c	3-4	5.6	F8 IIIa-J	"	"	"	"	B	SJ 2nd.	darker clouds	
2/ 350	3-4	6.18	B2 IIIa	"	"	"	"	A	Runaway G15	"	
							"				
100/ 207	4	8.8	G5 IIIa	"	"	"	"	B	Cyph/Evans	T guess ≈ 72°F	
70/ 400	3-4	6.2	F2	"	"	"	"	A	Cyph/Evans	T=69°F clouds thin 504	
				"	"	"	"	B		T=67°F T=504	
										comp [illegible]	

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Date ..... Observers .....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	E